

Exhibit A

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Per local Rule, This case is assigned to
Judge Douglas, Danielle K, for all purposes.

6 ATTORNEYS FOR JASON GRAZIANO
AND AMY GRAZIANO

SUMMONS ISSUED

8 SUPERIOR COURT OF CALIFORNIA
9 COUNTY OF CONTRA COSTA COUNTY

10
11 JASON GRAZIANO and AMY GRAZIANO, CASE NO. C22-01644

12 Plaintiffs,

COMPLAINT FOR DAMAGES AND
INJUNCTIVE RELIEF

13 v.

14 3M COMPANY, E. I. DU PONT DE
NEMOURS & CO., THE CHEMOURS
15 COMPANY L.L.C., ARCHROMA U.S.,
INC., ARKEMA, INC, AGC CHEMICALS
16 AMERICAS, INC., DAIKIN AMERICA,
INC., DYNAX CORPORATION, JOHNSON
17 CONTROLS, INC., TYCO FIRE
PRODUCTS, L.P., CHEMGUARD, INC.,
18 NATIONAL FOAM, INC, CARRIER
GLOBAL CORPORATION, KIDDE-
19 FENWAL, INC, PERIMETER SOLUTIONS,
LP, FIRE SERVICE PLUS, INC., BUCKEYE
20 FIRE EQUIPMENT, AMEREX
CORPORATION, MINE SAFETY
21 APPLIANCE COMPANY LLC, GLOBE
MANUFACTURING COMPANY LLC,
22 LION GROUP, INC., W. L. GORE &
ASSOCIATES, INC., TEN CATE
23 PROTECTIVE FABRICS USA D/B/A
SOUTHERN MILLS INC., PBI
24 PERFORMANCE PRODUCTS, INC.,
HONEYWELL SAFETY PRODUCTS USA,
25 INC., STEDFAST USA, INC., L.N. CURTIS
& SONS, ALLSTAR FIRE EQUIPMENT,
26 MALLORY SAFETY AND SUPPLY LLC,
MUNICIPAL EMERGENCY SERVICES
27 INC. and DOES 1 through 25, INCLUSIVE,

28 Defendants.

1 _____
 2 Plaintiffs Jason Graziano and Amy Graziano by and through their attorneys of record, allege
 3 as follows:

4 INTRODUCTION

5 1. Plaintiff Jason Graziano (“Jason” or “Plaintiff”) is a retired firefighter who has served
 6 the Department of Forestry and Fire Protection in various counties as a firefighter and worked in
 7 various fire stations, engine, truck, in the County of San Luis Obispo, Napa, and surrounding
 8 counties for decades. Plaintiff is married to Amy Graziano (“Amy” or “Spouse”) (collectively,
 9 “Plaintiffs”).

10 2. Plaintiffs bring this action for monetary damages and appropriate equitable and
 11 injunctive relief for harm resulting from exposure to per- and polyfluoroalkyl substances (“PFAS”)
 12 that were manufactured, designed, sold, supplied, distributed and/or contained in products
 13 manufactured, designed, sold, supplied and/or distributed by each of the Defendants, individually or
 14 through their predecessors or subsidiaries.

15 3. PFAS are human-made chemicals consisting of a chain of carbon and fluorine atoms
 16 used in manufactured products to, inter alia, resist and repel oil, stains, heat and water. PFAS include
 17 “long-chain” PFAS made up of seven or more carbon atoms (“long-chain PFAS”) as well as “short-
 18 chain” PFAS made up of six or fewer carbon atoms (“short-chain PFAS”).

19 4. PFAS are known as “forever chemicals” because they are immune to degradation, bio-
 20 accumulate in individual organisms and humans, and increase in concentration up the food chain.
 21 PFAS exposure to humans can occur through inhalation, ingestion and dermal contact.¹

22 5. PFAS have been associated with multiple and serious adverse health effects in humans
 23 including cancer, tumors, liver damage, immune system and endocrine disorders, high cholesterol,
 24 thyroid disease, ulcerative colitis, birth defects, decreased fertility, and pregnancy-induced
 25 hypertension. PFAS have also been found to concentrate in human blood, bones and organs and,
 26 most recently, to reduce the effectiveness of vaccines, a significant concern in light of COVID-19.

27 _____
 28 ¹ Suzanne E. Fenton, MS, PhD, *PFAS Collection*, Environmental Health Perspectives (February 22,
 2019), <https://ehp.niehs.nih.gov/curated-collections/pfas>.

6. Unbeknownst to Plaintiff, Defendants have manufactured, marketed, distributed, sold, or used PFAS and PFAS-containing materials in protective clothing specifically designed for firefighters (“turnouts”) and in Class B firefighting foams (“Class B foam”).²

7. For decades, Defendants were aware of the toxic nature of PFAS and the harmful impact these substances have on human health. Yet, Defendants manufactured, designed, marketed, sold, supplied, or distributed PFAS and PFAS chemical feedstock³, as well PFAS-containing turnouts and Class B foam, to firefighting training facilities and fire departments nationally, including in California and in San Luis Obispo County and San Mateo County. Defendants did so, moreover, without ever informing firefighters or the public that their turnouts and Class B foams contained PFAS, and without warning firefighters or the public of the substantial and serious health injuries that can result from exposure to PFAS or PFAS-containing materials.

8. Plaintiff wore turnouts and used Class B foam in the usual and normal course of performing his firefighting duties and training and were repeatedly exposed to PFAS in his workplace. He did not know and, in the exercise of reasonable diligence, could not have known that these products contained PFAS or PFAS-containing materials. He also did not know that PFAS was in his body and blood.

9. Meanwhile, at all relevant times and continuing to the present, Defendants have represented that their turnouts and Class B foams are safe.

10. Plaintiff was diagnosed with colon cancer on December 19, 2018. His physician notified him that he had colon cancer due to a tumor in his rectum. His physician did not articulate a specific cause, but made general statements that fire fighters have a higher risk of getting cancer due to exposure to various carcinogens. There was no specific reference to PFAS or PFAS-containing materials. At this point, physicians had no reason to believe that PFAS or PFAS-containing materials could be the cause, nor could they know that fire fighters were exposed to the foam at such high

² Class B foams are synthetic “soap-like” foams that spread rapidly across the surface of a fuel or chemical fire to stop the formation of flammable vapors. The most common Class B foam is aqueous film-forming foam (or “AFFF”).

³ Chemical feedstock refers to a chemical used to support a large-scale chemical reaction. The PFAS chemicals utilized to manufacture products containing PFAS are generally referred to herein as “chemical feedstock.”

1 levels.

2 11. Before going to the doctor in 2018, Plaintiff Googled the causes of blood in stool but
3 no search result unveiled a direct link to PFAS or PFAS-containing materials. He never Googled
4 PFAS or PFAS-containing materials and whether it caused cancer because nothing suggested that it
5 would be the cause of cancer. When Plaintiff first discovered that he had cancer, he did not Google or
6 search for causes of cancer in fire fighters due to the statements by his physicians.

7 12. In February 2019, Plaintiff had surgery to remove the tumor in his rectum. He was
8 required to wear a colostomy bag for three months. Once removed, it appeared he was in remission.

9 13. In February 2020, a year after removal of the cancer, Plaintiff returned for blood
10 work. Results demonstrated that the cancer returned outside of his rectum along his coccyx. He
11 immediately started chemotherapy and radiation. In July 2020, he underwent a 14 hour surgery which
12 permanently removed parts of his colon, bowl, tail bone. He requires the use of a permanent
13 colostomy bag, has urinary issues, and permanent nerve damage.

14 14. At that time, Plaintiff inquired with his physicians and specialists again about the
15 cause, but received the same information. No one in the medical community led him to believe that
16 the cause of his cancer was related to PFAS or PFAS-containing materials because they had no
17 reason to believe or know that it was.

18 15. Plaintiff did not learn of his PFAS exposure until on or around August 2021 when
19 discussing his cancer diagnosis with a colleague in the same union, Cal Fire Local 2881. Plaintiff's
20 colleague told him about an article relating to the pervasiveness of the cancer related to the PFAS or
21 PFAS-containing materials. Upon his initial discovery, Plaintiff discovered the numerous lawsuits
22 and articles related to the PFAS or PFAS-containing materials and various forms of cancer. When
23 Plaintiff's Union received notice PFAS or PFAS-containing materials caused cancer on or around
24 August 2021, flyers set out to warn individuals and to encourage medical testing. Nothing was posted
25 prior.

26 16. Plaintiff used the turnouts and Class B foam as it were intended and in a foreseeable
27 manner which exposed him to PFAS in the course of his firefighting activities. This repeated and
28 extensive exposure to PFAS resulted in colon-rectal cancer and other serious and life-threatening

1 diseases to Plaintiff. His PFAS exposure continues to pose a significant threat to his personal health
2 due to PFAS' persistence, pervasiveness, toxicity and bioaccumulation.

3 17. Defendants knowingly and willfully manufactured, designed, marketed, sold, and
4 distributed chemicals and/or products containing PFAS for use within the State of California when
5 they knew or reasonably should have known that Plaintiff would repeatedly inhale, ingest and/or
6 have dermal contact with these harmful compounds during firefighting training exercises and in
7 firefighting emergencies, and that such exposure would threaten the health and welfare of Plaintiff
8 exposed to these dangerous and hazardous chemicals.

9 18. Plaintiffs bring this action against Defendants and seek damages, together with any
10 appropriate injunctive or other equitable relief.

11 **PARTIES**

12 19. Plaintiff Jason Graziano has been in the fire service for 20 years at CAL FIRE at
13 various counties including San Luis Obispo and Napa. Jason's firefighter training and responsibilities
14 specifically included going on extensive trips to help with wildfires (including use and application of
15 foam). In his early years, he would go on four month durations, but due to climate change and
16 consistent wildfires, he was tasked nine months out of the year covering wildfires. In the course of
17 firefighting training and fire suppression activities, Jason routinely wears and/or wore turnouts and
18 uses and/or has used Class B foam. He was unaware that the turnouts he wears and/or wore, and the
19 Class B foam he uses and/or used contained PFAS or PFAS-containing materials. He has been
20 diagnosed with and treated for colorectal cancer.

21 20. Defendant 3M Company (a/k/a Minnesota Mining and Manufacturing Company)
22 ("3M") is a Delaware corporation that does business throughout the United States, including
23 conducting business in California. 3M has its principal place of business in St. Paul, Minnesota. 3M
24 developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials,
25 and products containing PFAS in turnouts and/or Class B foams, including in California.

26 21. Defendant E. I. du Pont de Nemours & Co. ("DuPont") is a Delaware corporation that
27 does business throughout the United States, including conducting business in California. DuPont has
28 its principal place of business in Wilmington, Delaware. DuPont developed, manufactured, marketed,

1 distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in
2 turnouts and/or Class B foams, including in California and in the County of San Mateo.

3 22. Defendant The Chemours Company, L.L.C. (“Chemours”) is a Delaware corporation
4 that does business throughout the United States, including conducting business in California.
5 Chemours has its principal place of business in Wilmington, Delaware. Chemours developed,
6 manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products
7 containing PFAS in turnouts and/or Class B foams, including in California.

8 23. Defendant Archroma U.S., Inc. (“Archroma”) is a North Carolina corporation that
9 does business throughout the United States, including conducting business in California. Archroma
10 has its principal place of business in Charlotte, North Carolina. Archroma developed, manufactured,
11 marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing
12 PFAS in turnouts and/or Class B foams, including in California.

13 24. Defendant Arkema, Inc. (“Arkema”) is a Pennsylvania corporation that does business
14 throughout the United States, including conducting business in California. Arkema has its principal
15 place of business in King of Prussia, Pennsylvania. Arkema developed, manufactured, marketed,
16 distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in
17 turnouts and/or Class B foams, including in California.

18 25. Defendant AGC Chemicals Americas, Inc. (“AGC”) is a Delaware corporation that
19 does business throughout the United States, including conducting business in California. AGC has its
20 principal place of business in Exton, Pennsylvania. AGC developed, manufactured, marketed,
21 distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in
22 turnouts and/or Class B foams, including in California.

23 26. Defendant Daikin America, Inc. (“Daikin America”) is a Delaware corporation that
24 does business throughout the United States, including conducting business in California. Daikin
25 America has its principal place of business in Orangeburg, New York. Daikin America developed,
26 manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products
27 containing PFAS in turnouts and/or Class B foams, including in California.

28 27. Defendant Dynax Corporation (“Dynax”) is a New York corporation that does

1 business throughout the United States, including conducting business in California. Dynax has its
2 principal place of business in Pound Ridge, New York. Dynax developed, manufactured, marketed,
3 distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in
4 turnouts and/or Class B foams, including in California.

5 28. Defendant Johnson Controls, Inc. (“Johnson Controls”) is a Delaware corporation that
6 does business throughout the United States, including conducting business in California. Johnson
7 Controls has its principal place of business in Milwaukee, Wisconsin. Johnson Controls is the parent
8 of Defendants Tyco Fire Products, LP and Chemguard, Inc. Johnson Controls developed,
9 manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products
10 containing PFAS in turnouts and/or Class B foams, including in California.

11 29. Defendant Tyco Fire Products, L.P. (“Tyco”) is a Delaware corporation that does
12 business throughout the United States, including conducting business in California. Tyco has its
13 principal place of business in Exeter, New Hampshire. Tyco developed, manufactured, marketed,
14 distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in
15 turnouts and/or Class B foams, including in California.

16 30. Defendant Chemguard, Inc. (“Chemguard”) is a Wisconsin corporation that does
17 business throughout the United States, including conducting business in California. Chemguard has
18 its principal place of business in Marinette, Wisconsin. Chemguard developed, manufactured,
19 marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing
20 PFAS in turnouts and/or Class B foams, including in California.

21 31. Defendant National Foam, Inc., (“National Foam”) is a Pennsylvania corporation that
22 does business throughout the United States, including conducting business in California. National
23 Foam has its principal place of business in West Chester, Pennsylvania. National Foam developed,
24 manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products
25 containing PFAS in turnouts and/or Class B foams, including in California.

26 32. Defendant Carrier Global Corporation (“Carrier”) is a Delaware corporation that does
27 business throughout the United States, including conducting business in California. Carrier has its
28 principal place of business in Palm Beach Gardens, Florida. Carrier is the parent of Defendant Kidde-

1 Fenwal, Inc. Carrier developed, manufactured, marketed, distributed, released, sold, and/or used
2 PFAS, PFAS materials, and products containing PFAS in turnouts and/or Class B foams, including in
3 California.

4 33. Defendant Kidde-Fenwal, Inc. (“Kidde-Fenwal”) is a Delaware corporation that does
5 business throughout the United States, including conducting business in California. Kidde-Fenwal
6 has its principal place of business in Ashland, Massachusetts. Kidde-Fenwal developed,
7 manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products
8 containing PFAS in turnouts and/or Class B foams, including in California.

9 34. Defendant Perimeter Solutions, LP, (“Perimeter Solutions”) is a Delaware corporation
10 that does business throughout the United States, including conducting business in California.
11 Perimeter Solutions has a principal place of business in Rancho Cucamonga, California. Perimeter
12 developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials,
13 and products containing PFAS in turnouts and/or Class B foams, including in California.

14 35. Defendant Fire Service Plus, Inc. (“Fire Service Plus”) is a Georgia corporation that
15 does business throughout the United States, including conducting business in California. Fire Service
16 Plus has its principal place of business in Simi Valley, California. Fire Service Plus developed,
17 manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products
18 containing PFAS in turnouts and/or Class B foams, including in California.

19 36. Defendant Buckeye Fire Equipment (“Buckeye”) is a North Carolina corporation that
20 does business throughout the United States, including conducting business in California. Buckeye has
21 its principal place of business in Kings Mountain, North Carolina. Buckeye developed,
22 manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products
23 containing PFAS in turnouts and/or Class B foams, including in California.

24 37. Defendant Amerex Corporation, also known as Alabama Amerex Corporation,
25 (“Amerex”) is an Alabama corporation that does business throughout the United States, including
26 conducting business in California. Amerex has its principal place of business in Trussville, Alabama.
27 Amerex developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS
28 materials, and products containing PFAS in turnouts and/or Class B foams, including in California.

1 38. Defendant Mine Safety Appliance Company, LLC (“MSA/Globe”) is a Pennsylvania
 2 corporation that does business throughout the United States, including conducting business in
 3 California. MSA has its principal place of business in Cranberry Township, Pennsylvania. MSA
 4 acquired Globe Holding Company, LLC and its subsidiaries (collectively, “MSA/Globe”) in 2017
 5 and continues to do business under the Globe name. MSA developed, manufactured, marketed,
 6 distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in
 7 turnouts and/or Class B foams, including in California.

8 39. Defendant Globe Manufacturing Company, LLC (“Globe”) is a New Hampshire
 9 corporation that does business throughout the United States, including conducting business in
 10 California. Globe has its principal place of business in Pittsfield, New Hampshire. Globe developed,
 11 manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products
 12 containing PFAS in turnouts and/or Class B foams, including in California. Defendant Mine Safety
 13 Appliance Company acquired Globe Holding Company, LLC and its subsidiaries (collectively,
 14 “MSA/Globe”) in 2017 and continues to do business under the Globe name.

15 40. Defendant Lion Group, Inc., (“Lion”) is an Ohio corporation that does business
 16 throughout the United States, including conducting business in California. Lion has its principal
 17 place of business in Dayton, Ohio. Lion developed, manufactured, marketed, distributed, released,
 18 sold, and/or used PFAS, PFAS materials, and products containing PFAS in turnouts and/or Class B
 19 foams, including in California.

20 41. Defendant W. L. Gore & Associates, Inc., (“Gore”) is a Delaware corporation that
 21 does business throughout the United States, including conducting business in California. Gore has its
 22 principal place of business in Newark, Delaware. Gore developed, manufactured, marketed,
 23 distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in
 24 turnouts and/or Class B foams, including in California.

25 42. Defendant Ten Cate Protective Fabrics USA d/b/a Southern Mills, Inc. (“Tencate”) is
 26 a Georgia corporation that does business throughout the United States, including conducting business
 27 in California. Tencate has its principal place of business in Senoia, Georgia. Tencate developed,
 28 manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products

1 containing PFAS in turnouts and/or Class B foams, including in California.

2 43. Defendant PBI Performance Products, Inc., (“PBI”) is a Delaware corporation that
3 does business throughout the United States, including conducting business in California. PBI has its
4 principal place of business in Charlotte, North Carolina. PBI developed, manufactured, marketed,
5 distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in
6 turnouts and/or Class B foams, including in California.

7 44. Defendant Honeywell Safety Products USA, Inc. (“Honeywell”) is a Delaware
8 corporation that does business throughout the United States, including conducting business in
9 California. Honeywell has its principal place of business in Charlotte, North Carolina. Honeywell
10 developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials,
11 and products containing PFAS in turnouts and/or Class B foams, including in California.

12 45. Defendant StedFast USA, Inc. (“StedFast”) is a Delaware corporation that does
13 business throughout the United States, including conducting business in California. StedFast has its
14 principal place of business in Piney Flats, Tennessee. StedFast developed, manufactured, marketed,
15 distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in
16 turnouts and/or Class B foams, including in California.

17 46. Defendant L.N. Curtis & Sons (“LN Curtis”) is a California corporation that does
18 business in California. LN Curtis has its principal place of business is Walnut Creek, California. LN
19 Curtis developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS
20 materials, and products containing PFAS in turnouts and/or Class B foams, including in California.

21 47. Defendant AllStar Fire Equipment (“AllStar”) is a California corporation that does
22 business in California. AllStar has its principal place of business in Arcadia, California. AllStar
23 developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials,
24 and products containing PFAS in turnouts and/or Class B foams, including in.

25 48. Defendant Mallory Safety and Supply, LLC (“Mallory”) is a California corporation
26 that does business throughout the United States, including conducting business in California. Mallory
27 has its principal place of business in Longview, Washington. Mallory developed, manufactured,
28 marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing

1 PFAS in turnouts and/or Class B foams, including in California.

2 49. Defendant Municipal Emergency Services, Inc. (“MES”) is a Nevada corporation that
3 does business throughout the United States, including conducting business in California. MES has its
4 principal place of business in Sandy Hook, Connecticut. MES developed, manufactured, marketed,
5 distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in
6 turnouts and/or Class B foams, including in California.

7 50. Plaintiffs are currently unaware of the true names and capacities of Defendants named
8 herein as DOES 1 through 25, inclusive, and Plaintiffs therefore sue those Defendants by fictitious
9 names pursuant to California Code of Civil Procedure §474. Plaintiffs will amend this complaint to
10 state the true names and capacities of those Defendants sued herein as DOES when ascertained.
11 Plaintiffs allege that each fictitiously named Defendant is in some manner responsible for the acts
12 alleged herein and that they proximately caused the injuries to Plaintiffs as alleged herein.

13 51. Defendants DOES 1 through 25 are subsidiaries, partners, or other entities that were
14 involved in the design, development, manufacture, testing, packaging, promotion, marketing,
15 advertising, distribution, labeling, and/or sale of PFAS, PFAS materials, and products containing
16 PFAS in the turnouts and/or Class B foams that Firefighter Plaintiffs used, as alleged herein.

17 52. Plaintiffs allege that each named Defendant is in some manner responsible for the acts
18 alleged herein and that they proximately caused the injuries to Plaintiffs, as alleged herein.

19 53. Plaintiffs allege that each named Defendant derived substantial revenue from the
20 PFAS, PFAS materials, and products containing PFAS in turnouts and/or Class B foams that
21 Defendants designed, developed, manufactured, tested, packaged, promoted, marketed, advertised,
22 distributed, labeled and/or sold within California, and that were used by Plaintiff herein within San
23 Mateo County, California.

24 54. Defendants expected or should have expected their acts to have consequences within
25 the State of California, and derived substantial revenue from interstate commerce.

26 55. Defendants purposefully availed themselves of the privilege of conducting activities
27 within the State of California, thus invoking the benefits and protections of its laws.

28

JURISDICTION AND VENUE

56. This Court has jurisdiction over this action under California Code of Civil Procedure § 410.10 and Article VI, §10 of the California Constitution. The injuries and damages alleged herein are in an amount within the jurisdiction of this Court.

57. One or more defendants reside in County of Contra Costa, city of Walnut Creek, thus venue is proper is this Court under California Code of Civil Procedure § 395(a).

SUBSTANTIVE ALLEGATIONS

A. Plaintiff's Use of and Exposure to PFAS-Containing Products

58. Plaintiff was a firefighter for CAL FIRE who served in various counties throughout California, including San Luis Obispo and Napa, and worked in various fire stations, engine, truck, and traveled to various counties throughout California to fight wildfires, and surrounding counties for decades.

59. As first responders to fire, hazardous materials incidents, and other emergency and medical calls, Plaintiff risked his life on a daily basis. With this EMT certificate, he not only saved lives and homes, he provided emergency services and medical care, perform rescues, and offer support to people in traumatic circumstances. To prepare him for this enormously challenging work, Plaintiff wore turnouts and receive extensive and ongoing training in fire suppression (including the preparation and use of Class B foam), fire prevention, rescue, and emergency medical care action to protect and/or minimize the loss of life, property, and damage to the environment.

60. California Department of Forestry and Fire Protection (CAL FIRE) is dedicated to the fire protection and stewardship of over 31 million acres of California's privately-owned wildlands. Preventing wildfires in the State Responsibility Area (SRA) is a vital part of CAL FIRE's mission. While these efforts have occurred since the early days of the Department, CAL FIRE has adapted to the evolving destructive wildfires and succeeded in significantly increasing its efforts in fire prevention. The Department's Fire Prevention Program consists of multiple activities including wildland pre-fire engineering, vegetation management, fire planning, education and law enforcement. Typical fire prevention projects include brush clearance, prescribed fire, defensible space inspections, emergency evacuation planning, fire prevention education, fire hazard severity mapping, and fire-

1 related law enforcement activities.⁴

2 61. In addition, the CAL FIRE provides varied emergency services in 36 of California's
3 58 counties via contracts with local governments, including the County of San Luis Obispo and
4 Napa. San Luis Obispo Cal Fire protects a tight knit community of 48,000 people and provides all
5 hazard emergency responses and fire protection to San Luis Obispo County, Pismo Beach, Avila
6 Beach, Cayucos, and Los Osos. Napa Cal Fire protected a larger population of 79,000 residents.

7 62. For decades, Defendants, either individually or through their predecessors or
8 subsidiaries, have manufactured, designed, sold, supplied, and distributed chemical feedstock and/or
9 turnouts and Class B foam containing PFAS to firefighting training facilities and fire departments
10 globally, including within the State of California and the county of San Luis Obispo, Napa, and
11 neighboring communities in California.

12 63. With over 5,000 individual chemicals, PFAS is a large and ever-growing category of
13 human-made chemicals, consisting of a nearly indestructible chain of carbon and fluorine atoms that
14 are widely used in products to, *inter alia*, resist and repel oil, heat and water, and have been found to
15 have negative health effects. As detailed below, these toxic chemicals are present in firefighter
16 turnouts and Class B foam.

17 **B. PFAS-Containing Turnout Gear**

18 64. During firefighting training and when responding to fires and performing fire
19 extinguishment, firefighters wear turnouts that are intended to provide a degree of thermal, chemical,
20 and biological protection for a firefighter. Turnout gear components include a helmet, hood, jacket,
21 pants, boots, and gloves. Each component is made of an outer layer, as well as several inner layers
22 that include a moisture barrier and thermal liner which are meant to protect the firefighter from
23 ambient heat.⁵

24 65. PFAS chemicals are used in turnout gear to impart heat, water, and stain resistance to
25 the outer shell and moisture barrier of turnout gear.

26
27 ⁴ Cal Fire Website (last visited August 4, 2022), <https://www.fire.ca.gov/about-us/>

28 ⁵ *What Materials Go Into Making Turnout Gear?*, Globe MSA Safety Website, (last visited August 4, 2022), <https://globe.msasafety.com/selecting-your-gear/materials>.

66. A June 2020 study of turnout gear by researchers at the University of Notre Dame analyzed 30 new and used turnout jackets and pants originally marketed, distributed and sold in 2008, 2014, and 2017, by six turnout gear makers, including Defendants MSA/Globe, Lion and Honeywell and found high levels of PFAS in turnout gear worn, used, or handled by firefighters, including the Plaintiff.⁶

67. When exposed to heat, PFAS chemicals in the turnouts off-gas, break down, and degrade into highly mobile and toxic particles and dust,⁷ exposing firefighters to PFAS chemicals, particles and dust, including through skin contact/absorption, ingestion (e.g., hand-to-mouth contact) and/or inhalation.⁸ Further, firefighter exposure to these highly mobile and toxic materials occurs through normal workplace activities, because particles or dust from their turnouts spread to fire vehicles and fire stations, as well as firefighters' cars and homes.⁹

68. Such workplace exposure to PFAS or PFAS-containing materials has been found to be toxic to humans. As far back as a July 31, 1980 internal memo, DuPont officials described measures that were needed to prevent workplace exposure to PFOA, which they knew could permeate all protective materials, and noted that PFOA'S toxicity varied depending on the exposure pathway, acknowledging that ingestion was "slightly toxic," dermal contact was "slightly to moderately toxic" and inhalation was "highly toxic."¹⁰ The memo concluded "continued exposure is not tolerable."¹¹

69. As alleged herein, Plaintiff wears and/or wore turnouts in the ordinary course of performing his duties, as the turnouts were intended to be used and in a foreseeable manner, which exposed him to significant levels of PFAS.

70. Plaintiff did not know, and in the exercise of reasonable diligence could not have

⁶ Graham Peaslee et al., *Another Pathway for Firefighter Exposure to Per- and Polyfluoroalkyl Substances: Firefighter Textiles*, *Environmental Science & Technology Letters* 2020, 7, 8, 594-599 (Ecotoxicology and Public Health) (June 23, 2020) (hereinafter, "the Notre Dame Turnout Study").

⁷ A.S. Young et al., *Per-and Polyfluoroalkyl Substances (PFAS) and Total Fluorine in Fire Station Dust*, *J. Expo. Sci. Environ. Epidemiology* (2021), <https://www.nature.com/articles/s41370-021-00288-7>

⁸ *Id.*

⁹ *Id.*

¹⁰ Robert Bilott, *Exposure* (2019), pg. 174.

¹¹ *Id.* at pg. 175.

1 known, that the turnouts he wore or used in the course of performing his duties contained PFAS or
2 PFAS-containing materials, and similarly did not know and could not have known that he routinely
3 suffered exposure to PFAS or PFAS-containing materials in the turnouts he wore or used in
4 performing his duties. The turnout gear worn or used by Plaintiff did not and does not contain
5 labeling information saying that the gear contains PFAS, and similarly did not and does not warn the
6 Plaintiff of the health risks associated with exposure to PFAS.

7 71. Like many fire departments across the country, Plaintiff only had one set of turnouts
8 of structured protection gear to wear and only two sets relating to wildland gear. For years and,
9 indeed, throughout the majority of his career, Plaintiff only had one set of turnouts that was never
10 washed because there was no second set available. Plaintiff's turnout gear always needed to be
11 available, thus there was no opportunity to wash them during his career as a firefighter. Moreover,
12 the uniforms worn underneath the turnouts would be taken home and cleaned in his home washing
13 machines - unknowingly exposing his spouse and home home to the highly mobile and pernicious
14 PFAS chemicals contained in and on Plaintiff's uniform gear.

15 **C. PFAS-Containing Class B Foam**

16 72. Class B foam is one of the primary tools used by firefighters for fire suppression and
17 is particularly effective for extinguishing fires involving oil and/or chemicals common at wildfires,
18 transportation accidents, aircraft accidents, chemical spills, and Hazmat incidents. Class B foam is
19 also used in structural or other types of non-chemical fires when water cannot penetrate deeply
20 enough to ensure that unseen fire is extinguished. The most common Class B foam is aqueous film
21 forming foam ("AFFF"). AFFF and other Class B foams contain PFAS.

22 73. To use Class B foam, a Class B foam concentrate must first be mixed with water.

23 74. Class B foam concentrate is typically sold in five-gallon containers that a firefighter or
24 fire engineer is responsible for storing on the engine and/or pouring into the foam bladder of engine.
25 To mix the foam concentrate and water in an engine that is not pre-plumbed, an educator must be
26 placed in the foam concentrate to draw up the concentrate and mix it with water to create a thick,
27 white, foamy substance. The fire engineer is responsible for this process of preparing the foam and
28 for cleaning the equipment (bladders, hoses, nozzles, etc.) after use.

1 75. The process of mixing Class B foam, plumbing and preparing it, and cleaning the
2 equipment after foam use causes exposure to PFAS through skin contact, inhalation, or ingestion
3 (e.g., hand-to-mouth contact). The Class B foam containers used by Plaintiff and his fire department
4 to mix and prepare the Class B foam for use did not say that the foam contains PFAS, and did not
5 warn Plaintiff of the serious health risks associated with exposure to PFAS.

6 76. Class B foam is used in fire extinguishment in a manner typical of routine methods of
7 fire extinguishment - by being sprayed through a fire hose.

8 77. The techniques used for “laying a blanket” of Class B foam in fire extinguishment
9 include: banking the foam off a wall or vertical surface to agitate the foam before it covers the fire; or
10 applying it to the ground surface where the fire is burning. In structure fires, it can also be necessary
11 to spray the ceilings, walls and floors. Reapplication of foam is often necessary because the foam
12 blanket will break down over time.

13 78. These techniques are used routinely in firefighting training as well as in real-world
14 fire extinguishment during wildfires, and result in firefighters being sprayed or entirely soaked with
15 Class B foam, walking in and through Class B foam (which can reach thigh- or even waist-high), or
16 kneeling in Class B foam during use - all as depicted in the exemplar photographs below. As a result,
17 the techniques cause exposure to PFAS through skin contact, inhalation, or ingestion (e.g., hand-to
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mouth contact).





1 79. As alleged herein, Plaintiff uses or used Class B foam in the ordinary course of
 2 performing his duties as it was intended to be used and in a foreseeable manner which exposed them
 3 to significant levels of PFAS.

4 80. Plaintiff did not know, and in the exercise of reasonable diligence, could not have
 5 known that the Class B foam he used in the course of performing his duties contained PFAS or
 6 PFAS-containing materials, and similarly did not know and could not have known that he routinely
 7 suffered exposure to PFAS or PFAS-containing materials in the Class B foam he used in performing
 8 his duties.

9 81. These exposures to PFAS or PFAS-containing materials resulted in serious and life
 10 threatening diseases to the Plaintiff, and continue to pose a significant health threat to him given the
 11 bioaccumulation, pervasiveness and persistence of PFAS.

12 **D. The Chemical Structure of PFAS Makes Them Harmful to Human Health**

13 82. PFAS are known as “forever chemicals” because they are immune to degradation,
 14 bioaccumulate in individual organisms and humans, and increase in concentration up the food
 15 chain.¹² Indeed, scientists are unable to estimate an environmental half-life (i.e. the time it takes for
 16 50% of the chemical to disappear) for PFAS.¹³ Additionally, some PFAS chemicals (known as
 17 “precursors”) degrade into different long-chain PFAS chemicals.¹⁴

18 83. PFAS are nearly indestructible and are highly transportable.¹⁵ PFAS exposure to
 19 humans can occur through inhalation, ingestion, or dermal contact.¹⁶

20 84. PFAS chemicals include “older” long-chain PFAS like PFOA, PFOS, and PFNA that
 21 have seven or more carbon atoms, and “newer” short-chain PFAS, like PFBA, PFBS, PFHXA, and

22 _____
 23 ¹² *Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)*, National Institute of Environmental
 Health Sciences (last visited August 4, 2022),

24 <https://www.niehs.nih.gov/health/topics/agents/pfc/index.cfm>

25 ¹³ *Id.*

26 ¹⁴ *Id.* at fn. 8; Monica Amarelo, *Study: Almost All Fluorine Detected in Fire Stations’ Dust Is From Unknown “Forever Chemicals,”* Environmental Working Group (August 4, 2022),

27 <https://www.ewg.org/release/study-almost-all-fire-stations-dust-unknown-forever-chemicals>

28 ¹⁵ *Toxicological Profile for Perfluoroalkyls*, see Relevance to Public Health, Agency for Toxic
 Substances & Disease Registry, (last visited August 4, 2022),

<https://www.atsdr.cdc.gov/toxprofiles/tp.asp?id=1117&tid=237>

¹⁶ *Id.* at Potential for Human Exposure, pg. 535.

1 PFHXS. The PFAS chemical industry has repeatedly asserted that short-chain PFAS are safer and
 2 bio-degrade more easily than long-chain PFAS. However, short-chain PFAS are molecularly similar
 3 to long-chain PFAS, and recent scientific research conducted in 2020 shows that short-chain PFAS
 4 are in fact extremely persistent, highly mobile and transportable, almost impossible to remove from
 5 water, bio-accumulate in humans and the environment, and show similar toxicity as long-chain
 6 PFAS.¹⁷ For example, short-chain PFBA (with only four carbon molecules) which was created by
 7 defendant 3M and reportedly has a shorter half-life than other PFAS, recently has been found to
 8 accumulate in the lungs and, in turn, increase the severity of COVID-19 in patients with elevated
 9 levels of PFBA,¹⁸ among other health concerns. Short-chain PFAS also have lower technical
 10 performance and may therefore be used at higher quantities cancelling out any supposed benefits of
 11 lower bioaccumulation potential.¹⁹

12 85. To date, there is no safe, acceptable or “normal” level of PFAS in the human body.
 13 Further, the fact that PFOA, PFOS, PFHXS, PFHpA, and PFNA are often found together presents a
 14 substantial risk to human health. Defendants’ assertions that their products are safe because they do
 15 not contain PFOA or PFOS, or because they contain short-chain PFAS is just another example of
 16 their efforts to deflect from the reality that there are thousands of PFAS- including precursor PFAS
 17 which degrade into PFOA and PFOS.²⁰

18
 19 ¹⁷ Cheryl Hogue, *Short-chain and long-chain PFAS show similar toxicity*, US National Toxicology
 20 Program says, Chemical and Engineering News, (August 24, 2019),
 21 <https://cen.acs.org/environment/persistent-pollutants/Short-chain-long-chain-PFAS/97/i33>; David
 22 Andrews, *FDA Studies: ‘Short-Chain’ PFAS Chemicals More Toxic Than Previously Thought*,
 23 Environmental Working Group (March 9, 2020), <https://tinyurl.com/y3lbq7by> Stephan Brendel et
 24 al., *Short-chain Perfluoroalkyl Acids: Environmental Concerns and A Regulatory Strategy Under*
 25 *REACH*, Environmental Sciences Europe, Vol. 30, 1 (2018),
 26 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5834591/>; Tom Neltner, *The Elephant in the*
 27 *Room: Potential Biopersistence of Short-Chain PFAS*, Environmental Defense Fund, (February 20,
 28 2019), <https://blogs.edf.org/health/2019/02/20/potential-biopersistence-short-chain-pfas/>.

¹⁸ *Exposure to Toxic Chemical Linked with Worse COVID-19 Outcomes*, The Harvard Gazette (Jan.
 25 6, 2021), [https://www.hsph.harvard.edu/news/hsph-in-the-news/pfas-exposure-linked-with-worse-](https://www.hsph.harvard.edu/news/hsph-in-the-news/pfas-exposure-linked-with-worse-covid-19-outcomes/)
 26 [covid-19-outcomes/](https://www.hsph.harvard.edu/news/hsph-in-the-news/pfas-exposure-linked-with-worse-covid-19-outcomes/).

¹⁹ Martin Scheringer et al., *Helsingar Statement on Poly- and Perfluorinated Alkyl Substances*
 27 (PFASS), Chemosphere (June 14, 2014),
 28 <https://www.sciencedirect.com/science/article/pii/S004565351400678X>.

²⁰ Technical Fact Sheet - Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoic Acid (PFOA),

86. PFAS exposure affects nearly every system in the body.²¹ It has been associated with multiple and serious adverse health effects in humans including, but not limited to, cancer, tumors, liver damage, immune system and endocrine disorders, thyroid disease, ulcerative colitis, birth defects, decreased fertility, pregnancy-induced hypertension, accelerated changes in gene expression, and increases in oxidative stress which can contribute to DNA changes, tumor promotion, and other health conditions.²² It has also been found to concentrate in human blood, bones and organs, and to reduce the effectiveness of certain vaccines, a significant concern in light of COVID-19.²³

E. Defendants Knowingly Manufactured, Developed, Marketed, Distributed, Supplied and/or Sold Toxic PFAS and/or Products Containing PFAS

87. Defendants have each marketed, developed, distributed, sold, promoted, manufactured, released, or otherwise used PFAS chemicals in products, including in PFAS containing turnout gear and Class B foam, throughout the United States and in California.

88. PFAS were first developed in the 1930s and 1940s. Soon after, 3M began manufacturing a PFAS material called perfluorooctanoic acid (“PFOA”), selling it to other companies, including DuPont.

89. By the 1950s, PFAS were widely used in large-scale manufacturing. Prior to this, PFAS had never been detected in nor were present in human blood or bodies.

United States Environmental Protection Agency, (Nov. 2017),

[https://www.epa.gov/sites/production/files/2017-](https://www.epa.gov/sites/production/files/2017-12/documents/ffrrofactsheet_contaminants_pfos_pfoa_11-20-17_508_0.pdf)

[12/documents/ffrrofactsheet_contaminants_pfos_pfoa_11-20-17_508_0.pdf](https://www.epa.gov/sites/production/files/2017-12/documents/ffrrofactsheet_contaminants_pfos_pfoa_11-20-17_508_0.pdf).

²¹ Kelly Lenox, PFAS Senate Hearing, Bimbaum’s Expert Scientific Testimony, Environmental Factor, National Institute of Environmental Health Sciences (May 2019),

<https://factor.niehs.nih.gov/2019/5/feature/1-feature-pfas/index.htm>.

²² A. Koskela et al., *Perfluoroalkyl substances in human bone: concentrations in bones and effects on bone cell differentiation*, Scientific Reports, (July 28, 2017),

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5533791/pdf/41598_2017_Article_7359.pdf;

National Toxicology Program Technical Report on the Toxicology and Carcinogenesis Studies of Perfluorooctanoic Acid Administered in Feed to Sprague Dawley (Hsd: Sprague Dawley SD) Rats, National Toxicology Program, (May 2020),

https://ntp.niehs.nih.gov/ntp/htdocs/lt_rpts/tr598_508.pdf.

²³ *Id.* (Koskela study); Tasha Stolber, *PFAS Chemicals Harm the Immune System, Decrease Response to Vaccines*, *New EWG Review Finds*, Environmental Working Group (November 12, 2020), <https://www.ewg.org/news-and-analysis/2020/11/pfas-chemicals-harm-immune-system-decrease-response-vaccines-new-ewg>

1 90. In the 1960s, Class B foam containing PFAS entered the global market and became
2 the primary firefighting foam all over the world with 3M as one of the largest manufacturers.

3 91. In the 1970s, Defendants National Foam and Tyco began to manufacture, market and
4 sell Class B foam containing PFAS, followed by Defendants Chemguard and Dynax in the 1990s,
5 and Defendant Buckeye in the 2000s.

6 92. Founded in 1918, Defendant MSA/Globe began manufacturing, marketing and selling
7 turnout gear with DuPont's NOMEX® PFAS-containing flame resistant fabric in 1966. MSA/Globe
8 (under the Globe name) continues to manufacture, market and sell turnout gear using PFAS
9 containing fabrics supplied by its partners, DuPont, Gore, Tencate, and PBI.²⁴

10 93. Defendant Lion began to manufacture, market and sell turnout gear in 1970. Since its
11 founding, and continuing through to the present, Lion makes, markets and sells turnout gear using
12 PFAS-containing fabrics, including Teflon® F-PPE-treated thermal lining material supplied by
13 Defendants DuPont's NOMEX® PFAS-containing flame/water/oil-resistant fabric, and moisture
14 barrier fabrics supplied by Defendant Gore.²⁵

15 94. Defendant Honeywell acquired Norcross Safety Products LLC in 2008, entering the
16 protective gear industry and becoming one of the leading manufacturers of turnouts. Honeywell
17 makes, markets and sells turnout gear using PFAS-containing fabrics, supplied by Defendants
18 DuPont, Gore, PBI and StedFast.

19 **F. Defendants Know Exposure to PFAS Causes Serious Health Impacts**

20 95. Defendants, including specifically 3M and DuPont, have long known about the
21 serious and significant impacts to health caused by exposure to PFAS, having conducted study after
22 study on the exposure and health effects of PFAS on animals, and in some cases, even on their own
23 employees. The findings of these studies were discussed within the companies internally, yet were
24 never made public or shared with any regulatory agencies. Among the findings:

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26 ²⁴ See Globe History, Globe MSA Safety Website, (last visited August 4, 2022),
27 <https://globe.msasafety.com/history>; *Turnout Gear Materials*, Globe MSA Safety Website, (last
28 visited August 4, 2022), <https://globe.msasafety.com/materials>.

²⁵ See Our History, Lion Website (last Visited February 26, 2021),
<http://www.lionprotects.com/lion-history>; *Firefighter Turnouts*, Lion Website (last visited August 4,
2022), <https://www.lionprotects.com/firefighter-turnout-gear#>.

- a. A 1950 3M study showed that PFAS could build up in the blood of mice and that PFAS could bind to proteins in human blood suggesting that PFAS would not only remain, but also persist and accumulate in the body of the exposed individuals with each additional exposure.²⁶
- b. In 1961, a DuPont toxicologist warned that PFAS chemicals enlarge rat and rabbit livers.²⁷ A year later, these results were replicated in studies with dogs.²⁸
- c. In 1963, 3M's technical handbook classified PFAS as toxic and advised that "due care should be exercised in handling these materials."²⁹
- d. In 1970, a company that purchased 3M's firefighting foam had to abandon a test of the product because all the fish died.³⁰
- e. In the 1970s, DuPont discovered that there were high concentrations of PFOA in the blood samples of factory workers at DuPont's Washington Works site.³¹
- f. By the end of the 1970s, studies performed by, at least 3M, indicated that PFAS materials were resistant to environmental degradation and would persist in the environment.³²
- g. In 1981, 3M, Which still supplied PFOA to DuPont and other corporations, found that ingestion of PFOA caused birth defects in rats. 3M reported this information to DuPont. DuPont then tested the children of pregnant employees in their Teflon division and found that of seven births, two children had eye defects. Defendants reassigned the female employees, but did not inform the EPA or make this information public.³³
- h. In 1988, a company that purchased PFAS firefighting foam complained to 3M because the product was not biodegradable as 3M represented.³⁴ Subsequently, a 3M employee wrote an internal memo that "3M should stop perpetrating the myth that these fluorochemical surfactants are

²⁶ *Timeline - For 50 Years, Polluters Knew PFAS Chemicals Were Dangerous But Hid Risks From Public*, Environmental Working Group, (2019), https://static.ewg.org/reports/2019/pfa-timeline/3M-DuPont-Timeline_sm.pdf; see also, <https://www.ewg.org/pfastimeline/>.

²⁷ *Id.*

²⁸ Nathaniel Rich, *The Lawyer Who Became DuPont's Worst Nightmare*, New York Times (June 6, 2016), <https://www.nytimes.com/2016/01/10/magazine/the-lawyer-who-became-duponts-worst-nightmare.html>.

²⁹ *Id.* at fn. 28.

³⁰ *Id.*

³¹ *Id.*

³² *PFCS: Global Contaminants: PFCS Last Forever*, Environmental Working Group, (April 3, 2003), <https://www.ewg.org/research/pfcs-global-contaminants/pfcs-last-forever>.

³³ *Id.* at fn. 28.

³⁴ *The Devil They Knew: PFAS Contamination and the Need for Corporate Accountability*, Part II, Transcript of Hearing Before the Subcommittee on Environment of the Committee on Oversight and Reform, House of Representatives (September 19, 2019), <https://docs.house.gov/meetings/GO/GO28/20190910/109902/HHRG-116-GO28-Transcript-20190910.pdf>.

- 1 biodegradable, but the company continued to sell them.”³⁵
- 2 i. By at least the end of the 1980s, research performed by Defendants,
- 3 including specifically, Defendants 3M and DuPont, manufacturing
- 4 and/or using PFAS materials indicated that at least one such PFAS
- 5 material, PFOA, caused testicular tumors in a chronic cancer study in
- 6 rats, resulting in at least Defendant DuPont classifying such PFAS
- 7 material internally as a confirmed animal carcinogen and possible
- 8 human carcinogen.³⁶
- 9 j. In the 1990s, Defendant DuPont knew that PFOA caused cancerous
- 10 testicular, pancreatic and liver tumors in lab animals. One study also
- 11 suggested that PFOA exposure could cause possible DNA damage.³⁷
- 12 Another study of workers found a link between PFOA exposure and
- 13 prostate cancer.³⁸
- 14 k. In response to the alarming and detrimental health impact, DuPont
- 15 began to develop an alternative to PFOA and in 1993, an internal
- 16 memo announced that “for the first time, we have a viable candidate”
- 17 that appeared to be less toxic and showed less bioaccumulation.³⁹
- 18 DuPont decided against using this potentially safer alternative,
- 19 however, because products manufactured With PFOA were worth \$1
- 20 billion in annual profit.⁴⁰
- 21 l. On June 30, 2000, 3M and DuPont met to share 3M’s “pertinent data
- 22 on PFOA”. 3M informed DuPont that the half-life of PFOA was much
- 23 longer than animal studies showed.⁴¹

24 96. Additionally, approximately fifty years of studies by Defendants, including by 3M and

25 DuPont, on human exposure to PFAS found unacceptable levels of toxicity and bio-accumulation, as

26 well as a link to increased incidence of liver damage, various cancers, and birth defects in humans

27 exposed to PFAS.⁴² These studies also revealed that, once in the body, PFAS has a very long half-life

28 and that it takes years before even one-half of the chemicals begins to be eliminated from the body-

assuming, of course, the body experiences no additional PFAS chemical exposure.⁴³

97. In the face of these findings, and despite passage of the Toxic Substances Control Act

³⁵ *Id.*

³⁶ *Id.* at fn. 28.

³⁷ *Id.*

³⁸ *Id.*

³⁹ *Id.*

⁴⁰ *Id.*

⁴¹ *Internal DuPont Memorandum*, DuPont Haskell Laboratory Visit (June 30, 2000),
<https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1721.pdf>.

⁴² *Id.* at fn. 28.

⁴³ *Id.*

1 in 1976, which requires companies that manufacture, process or distribute chemicals to immediately
 2 report to the Environmental Protection Agency (“EPA”) information that “reasonably supports the
 3 conclusion” that a chemical presents a substantial risk to health or the environment, Defendants did
 4 not inform the EPA, Plaintiff, or the public about the health impacts resulting from exposure to
 5 PFAS.⁴⁴ Indeed, in at least some instances, Defendants’ own attorneys advised the companies to
 6 conceal their damaging findings on PFAS, which they did for decades.⁴⁵

7 98. In 2000, 3M announced that it would cease manufacturing a specific PFAS chemical,
 8 PFOS, as well as Class B foam, on the same day the EPA announced that PFOA and PFOS, two
 9 chemicals in the PFAS family, had a “strong tendency to accumulate in human and animal tissues
 10 and could potentially pose a risk to human health and the environment over the long term.”⁴⁶

11 99. However, 3M did not recall PFOS, its chemical feedstock, or any Class B foam that it
 12 had previously manufactured, sold, or distributed, or that was then stored at firehouses and being
 13 used by firefighters around the country. And, no other Defendant stopped manufacturing PFAS
 14 chemicals or products containing PFAS. Rather, Defendants continued to manufacture, develop,
 15 market, promote, distribute and sell PFAS chemicals and PFAS-containing products, including
 16 specifically PFAS-containing turnouts, and Class B foams and did so without any warning to
 17 firefighters or to the public concerning the fact that these turnouts and foams contained PFAS, or that
 18 they posed a serious health risk to human health. Defendants instead continued to claim their
 19 products were safe.

20 100. By the 2000s, Defendants’ own research of its employees revealed multiple adverse
 21 health effects among workers who had been exposed to PFAS, including increased cancer incidence,
 22 hormone changes, lipid changes, and thyroid and liver impacts.⁴⁷

23 101. In 2001, a class action lawsuit was filed in West Virginia against DuPont on behalf of
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25 ⁴⁴ *Id.*

26 ⁴⁵ *Id.* at fn. 28.

27 ⁴⁶ *EPA and 3M Announce Phase Out of PFOS*, Press Release, United States Environmental
 28 Protection Agency (May 16, 2000),
https://archive.epa.gov/epapages/newsroom_archive/newsreleases/33aa946e6cb11f35852568e1005246b4.html.

⁴⁷ *Id.* at fn. 28.

1 people whose water had been contaminated by the nearby DuPont chemical plant where PFAS
2 chemicals were manufactured.

3 102. Defendants continued to manufacture, market, promote, distribute, and sell PFAS and
4 PFAS-containing products, including turnouts and Class B foam, and continued to publicly claim that
5 these products were safe. Defendants affirmatively suppressed independent research on PFAS, and
6 instead commissioned research and white papers to support their claims that PFAS and PFAS
7 containing products were safe to use, engaging consultants to further this strategy and ensure that
8 they would continue to profit from these toxic chemicals and products.

9 103. As one consultant wrote in pitching its services to DuPont, it was critical that the
10 PFAS industry develop an aggressive strategy to “[discourage] governmental agencies, the plaintiffs’
11 bar and misguided environmental groups” and “[implement] a strategy to limit the effect of litigation
12 and regulation on the revenue stream generated by PFOA.” The strategy was further described by
13 consultant as follows:

14
15 DUPONT MUST SHAPE THE DEBATE AT ALL LEVELS. . . . The outcome of this
16 process will result in the preparation of a multifaceted plan to take control of the
17 ongoing risk assessment by the EPA, looming regulatory challenges, likely litigation,
18 and almost certain medical monitoring hurdles. The primary focus of this endeavor is
19 to strive to create the climate and conditions that will obviate, or at the very least,
20 minimize ongoing litigation and contemplated regulation relating to PFOA. This
21 would include facilitating the publication of papers and articles dispelling the alleged
22 nexus between PFOA and teratogenicity as well as other claimed harm. We would
23 also lay the foundation for creating Daubert precedent to discourage additional
24 lawsuits.⁴⁸

25 104. Class B foam manufacturers and distributors adopted a similarly aggressive industry
26 campaign to evade government oversight or public attention of the risks posed by their products. At a
27 March 2001 meeting of the National Fire Protection Association’s Technical Meeting on Foam,
28 which included Defendant Class B foam manufacturers Tyco, Chemguard and National Foam, a 3M
representative informed attendees that 3M had discontinued its Class B foam business, citing

⁴⁸ Letter from P. Terrence Gaffney, Esq of The Weinberg Group to Jane Brooks, Vice President,
Special Initiatives, DuPont de Nemours & Company, regarding PFOA (April 29, 2003).

1 concerns about the “proven pervasiveness, persistence and toxicity” of PFOS.⁴⁹ Attendees also were
 2 informed of evidence that telomer-based fluorosurfactants (used by every Class B foam manufacture
 3 except 3M) degrade to PFOA and, worse, exhibit an even greater degree of pervasiveness and
 4 toxicity than PFOA.

5 105. On or about the same time, certain Defendants, including at least Tyco, DuPont,
 6 Dynax, Kidde, and Buckeye, founded and/or became members of the Fire Fighting Foam Coalition
 7 (“FFFC”) - a non-profit organization of manufacturers, distributors and suppliers of Class B foam
 8 (specifically AFFF). The FFFC’s self-described role was to be “the environmental voice for users
 9 and manufacturers of AFFF”⁵⁰ - one designed to ignore the health impacts of exposure to PFAS
 10 containing Class B foams such as AFFF:

11 Not too long ago, 3M had environmental concerns about a chemical in their product and
 12 decided to withdraw from the AFFF market. Even though no other manufacturers used
 13 the questionable chemical, the withdrawal of 3M from AFFF production raised a red
 14 flag. As a direct result, a lot of half-truths and misinformation published by some well-
 15 meaning, but misinformed, groups began to surface. One organization went so far as to
 16 label our products as "hazardous waste" and as posing an "occupational health or
 17 environmental hazard." At the same time, the Federal government was focusing its
 18 attention on the industry and needed to identify an industry representative that could
 19 provide fact-based information and serve as a focal point for dialogue. We decided,
 20 therefore, to form the FFFC in order to educate, inform and help persuade regulatory
 21 and legislative decision-makers that firefighting foams are a value-added component to
 22 any firefighting capability.⁵¹

19 106. Defendants also pivoted with a new industry strategy. Defendants continued to
 20 produce Class B foams containing PFAS and continued to publicly represent that PFAS and/or
 21 products containing PFAS were safe, While developing newer, “short-chain” PFAS alternatives.

22 107. In 2005, the EPA fined DuPont \$16.5 million for failing to submit decades of toxicity
 23 studies of PFOA (one PFAS chemical manufactured by the company)⁵² In the face of and undeterred

24 ⁴⁹ *NFPA-11 Technical Committee Meeting Notes* (National Fire Protection Association for
 25 Standards on Low-, Medium- and High-Expansion Foam) (March 14-15, 2001),
 26 <https://assets.documentcloud.org/documents/4178280/NFPA-Schedule.pdf>.

26 ⁵⁰ Fire Fighting Foam Council Website (last visited August 4, 2022), <https://www.fffcc.org/>.

27 ⁵¹ *Id.* at [https://web.archive.org/web/20020811142253/](https://web.archive.org/web/20020811142253/http://www.fffcc.org/about.html)
 28 <http://www.fffcc.org/about.html> (captured August 11, 2002).

⁵² Michael Janofsky, *DuPont to Pay \$16.5 Million for Unreported Risks*, New York Times

1 by the EPA's action, Defendant turnout manufacturers, such as MSA (Globe) and Lion, partnered
 2 with DuPont and with Defendant Gore to develop, manufacture, market, distribute and turnouts made
 3 with DuPont's and/or Gore's PFAS-based textile coatings (e.g., Nomex® and Gore® Protective
 4 Fabrics)⁵³

5 108. In 2006, the EPA "invited" eight PFOA manufacturers, including Defendants DuPont,
 6 3M, Arkema, and Daikin to join in a "Global Stewardship Program" and phase out production of
 7 PFOA by 2015.⁵⁴

8 109. By this time, Defendants had begun to aggressively manufacture, market and/or
 9 distribute short-chain PFAS, such as Gen X, claiming that these alternative PFAS chemicals did not
 10 pose significant health risks to humans or the environment. But, these claims, too, were false.
 11 Defendants knew that certain of these short-chain PFAS chemicals had been found in human blood,
 12 and that at least one of them produces the same types of cancerous tumors (testicular, liver, and
 13 pancreatic) in rats as had been found in long-chain PFAS studies.⁵⁵

14 110. In 2011, a C8 Science Panel convened as part of a settlement in the West Virginia
 15 DuPont water contamination case described in paragraph 101, above, began releasing its findings.
 16 The Panel had analyzed the blood serum of nearly 70,000 residents living in the water contamination
 17 area for two long-chain PFAS (PFOA and PFOS), and found significant negative human health
 18 effects (including, kidney cancer, testicular cancer, ulcerative colitis, thyroid disease, high cholesterol
 19 and preeclampsia) associated with exposure to these PFAS chemicals in the area groundwater.

20
 21 _____
 22 (December 5, 2005), <https://www.nytimes.com/2005/12/15/politics/dupont-to-pay-165-million-for-unreported-risks.html>.

23 ⁵³ *DuPont and LION Collaborate to Better Protect Firefighters and First Responders*, Press
 24 Release, DuPont and LION (January 30, 2013),
 25 https://www.prweb.com/releases/dupont_protection_tech/lion_turnout_gear/prweb10362363.htm;
 26 Our Partners, Globe Website (last Visited February 26, 2021), [https://globe.msasafety.com/our-](https://globe.msasafety.com/our-partners)
 27 [partners](https://globe.msasafety.com/our-partners); and Firefighter & Emergency Response Protection, DuPont Website (last Visited February
 28 26, 2021), <https://www.dupont.com/personal-protection/firefighter-protection.html>.

⁵⁴ *PFOA Stewardship Program*, United States Environmental Protection Agency (last Visited
 February 26, 2021), [https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/risk-](https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/risk-management-and-polyfluoroalkyl-substances-pfas#tab-3)
 management-and-polyfluoroalkyl-substances-pfas#tab-3

⁵⁵ Sharon Lerner, *New Teflon Toxin Causes Cancer in Lab Animals*, The Intercept (March 3, 2016),
<https://theintercept.com/2016/03/03/new-teflon-toxin-causes-cancer-in-lab-animals/>.

111. In 2013, DuPont entered an agreement with the EPA and ceased production and use of PFOA- just one of thousands of PFAS chemicals the company makes, promotes and sells. Defendants, however, continued manufacturing short-chain PFAS materials, chemical feedstock, and products-all the while peddling them as safer, and as more easily bio-degraded than long-chain PFAS, despite evidence to the contrary.⁵⁶

112. In 2015, DuPont spun-off its PFAS chemicals business, as well two-thirds of its environmental liabilities and 90% of its active litigation, to Defendant Chemours. As part of the transaction, DuPont required Chemours to indemnify the “new” DuPont for all assigned environmental liabilities should a regulatory agency or plaintiff seek to hold the “new” DuPont accountable. As Chemours President Paul Kirsch testified before Congress: “DuPont designed the separation of Chemours to create a company Where it could dump its liabilities to protect itself from environmental cleanup and related responsibilities.”⁵⁷

113. In June 2018, the Agency for Toxic Substances and Disease Registry (ASTDR), a division of the Centers for Disease Control and Prevention at the US Department of Health and Human Services released an 852-page draft toxicology report analyzing scientific data about the most common PFAS chemical variants, finding that PFAS “are potentially more hazardous than previously known, are particularly concerning because of these compounds’ persistence in the environment and Widespread prevalence-PFAS are extremely slow to biodegrade.”⁵⁸

114. In September 2019, DuPont chief operations and engineering officer Daryl Roberts testified before Congress that the “new DuPont” (to be distinguished from the “old DuPont” which manufactured and sold PFAS for decades before being spun-off to Chemours) no longer uses or manufactures PFAS and is no longer responsible for obligations and harms resulting from over 65

⁵⁶ *Id.* at fn. 19, see Tom Neltner, <http://blogs.edf.org/health/2019/02/20/potential-biopersistence-short-chain-pfas/>.

⁵⁷ *Id.* at fn. 36.

⁵⁸ *A Toxic Threat: Government Must Act Now on PFAS Contamination at Military Bases*, Center for Science and Democracy (September 2018), <https://www.ucsusa.org/sites/default/files/attach/2018/09/a-toxic-threat-pfs-military-fact-sheet-ucs-2018.pdf>.

1 years of producing PFAS.⁵⁹ Roberts further testified that he knew nothing about “old DuPont’s”
 2 efforts to suppress research on PFAS’ toxicity as testified to by one of DuPont’s former scientists
 3 only a few days earlier.⁶⁰ Finally, he stated that any liabilities from “old DuPont’s” PFAS operations
 4 were now Chemours’ problem because DuPont is essentially a completely new company with no past
 5 - only a bright future of doing good in the world.⁶¹

6 **G. Defendants Failed to Warn Plaintiffs of the Dangers of Exposure to PFAS and**
 7 **Falsely Represented That Their PFAS Products Were Safe**

8 115. As alleged above, Defendants knew that PFAS are persistent, toxic, and
 9 bioaccumulating with a very long half-life. They knew that exposure to PFAS can cause serious and
 10 life threatening diseases, including cancer.

11 116. Yet, Defendants did not warn Plaintiffs that PFAS and Defendants’ PFAS-containing
 12 products, including turnouts and Class B foams used by Plaintiff, contained PFAS, or that exposure
 13 to PFAS in the normal and intended use of such products, causes serious bodily harm and illnesses,
 14 including cancer.

15 117. Instead, Defendants falsely represented-and continue to falsely represent-that PFAS
 16 and PFAS-containing products, including turnouts and Class B foams, are safe and not harmful to
 17 humans or the environment.

18 118. Such assertions fly in the face of science and a global movement toward eliminating
 19 this class of chemicals from consumer products. In just this past year, for example, Congress passed
 20 legislation to address PFAS in turnouts and foam,⁶² and numerous states have severely restricted
 21 and/or banned PFAS-containing firefighting foam with California and Colorado also banning PFAS-
 22 containing turnouts as of 2022.⁶³ The U.S. Food and Drug Administration similarly has called for

23
 24 ⁵⁹ *Id.* at fn. 36.

25 ⁶⁰ *Id.*

26 ⁶¹ *Id.*

27 ⁶² Ryan Woodward, *Congress Passes Legislation to Address PFAS Chemicals Impacting*
Firefighters, Fire Rescue 1, (December 17, 2020), [https://www.firerescue1.com/legislationfunding/](https://www.firerescue1.com/legislationfunding/articles/congress-passes-legislation-to-address-pfas-chemicals-impacting-firefighters-Sp8MFif5dAbD4ZrI/)
 28 [articles/congress-passes-legislation-to-address-pfas-chemicals-impacting-firefighters-](https://www.firerescue1.com/legislationfunding/articles/congress-passes-legislation-to-address-pfas-chemicals-impacting-firefighters-Sp8MFif5dAbD4ZrI/)
[Sp8MFif5dAbD4ZrI/](https://www.firerescue1.com/legislationfunding/articles/congress-passes-legislation-to-address-pfas-chemicals-impacting-firefighters-Sp8MFif5dAbD4ZrI/).

⁶³ Andrew Wallender, *Toxic Firefighting Foam With PFAS Scrutinized by Multiple States*,

phasing out of short-chain PFAS that contain 6:2 fluorotelomer alcohol (6:2 FTOH).⁶⁴ And private companies like Home Depot, Lowes and Staples recently have begun to discontinue selling products containing any PFAS, as have several outdoor, durable clothing companies (e.g. Columbia and Marmot), clothing retailers (e.g. H&M, Levi Strauss & Co), shoe companies (e.g. Adidas and New Balance), car seat manufacturers (e.g. Britax and Graco), furniture companies (e.g. IKEA), personal care companies (e.g. Johnson & Johnson and Oral-B), and textile manufacturing companies.⁶⁵

H. Defendants Provide No Safety Warnings on Product Labels

119. Plaintiff alleges that the packaging on the PFAS-containing Class B foam containers used for mixing Class B foam with water, pumping the mixture into engines, and for spraying and laying foam blankets for fire suppression or fire suppression training, contained no warning that the Class B foam contained PFAS. Nor did it inform persons handling or using the foam as it was intended to be handled that such use can result in exposure to PFAS and serious bodily harm.

Bloomberg Law (June 18, 2020), <https://news.bloomberglaw.com/pfas-project/toxic-firefighting-foam-with-pfas-scrutinized-by-multiple-states>; Cheryl Hogue, *California Bans PFAS Firefighting Foams*, *Chemical & Engineering News* (October 1, 2020) <https://cen.acs.org/environment/persistent-pollutants/California-bans-PFAS-firefighting-foams/>

98/i3 8#:~:text=California%20is%20halting%20the%20sale,US%20market%20to%20do%20fl; Marianne Goodland, *While Dozens of Bills Are Getting Axed, A Bill on Firefighting Chemicals Sails on*, *Colorado Politics* (May 28, 2020), https://www.coloradopolitics.com/legislature/whiledozens-of-bills-are-getting-axed-a-bill-on-firefighting-chemicals-sails-on/article_1b1605f2-a1llea-a270-230a3_6606594.html; *Legislature Takes Strongest Stand Yet to Phase out PFAS in Firefighting Foam*, *Washington State Council of Fire Fighters* (March 5, 2020), <https://www.wscff.org/legislature-takes-strongest-stand-yet-to-phase-out-pfas-in-firefighting-foam/>;

⁶⁴ *FDA Announces the Voluntary Phase-Out by Industry of Certain PFAS Used in Food Packaging*, U.S. Food and Drug Administration, July 31, 2020, <https://www.fda.gov/food/cfsan-constituent-updates/fda-announces-voluntary-phase-out-industry-certain-pfas-used-food-packaging>.

⁶⁵ Muhammad Malas, *Home Depot, Lowe's and Staples Take Action to Protect Their Customers from PFAS and Other Harmful Toxics Lurking in Carpets and Office Supplies*, *Environmental Defense* (November 5, 2019), <https://environmentaldefence.ca/2019/11/05/home-depot-lowes-staples-protect-customers-toxics/>; PFAS—Free Products, PFAS Central, (last Visited February 15, 2021), <https://pfascentral.org/pfas-free-products/>.

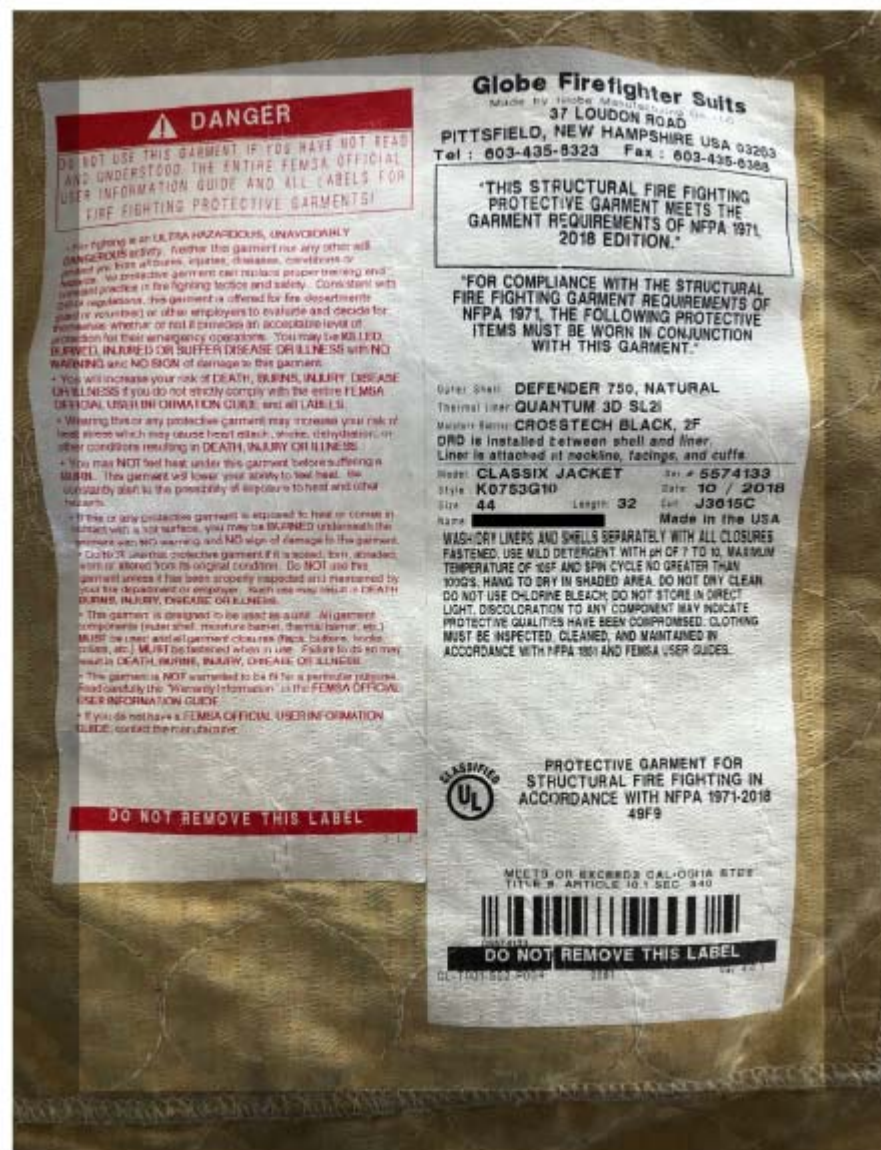
120. Below are pictures of some of the Class B foam containers manufactured, marketed, distributed, or sold by Defendants in California, and used by Plaintiff in training or in fire suppression during his firefighting career. The labels on the containers warn only of possible skin or eye irritation, and suggest rinsing areas of contact with water. They contain no information about the Class B foam containing PFAS or PFAS-containing materials, and provide no warning whatsoever of the human health risks and serious health conditions associated with PFAS exposure resulting from the normal and intended use of Class B foam in fire suppression or fire suppression training.



121. Plaintiff further alleges that turnouts containing PFAS or PFAS materials sold by Defendants in California, and used by Plaintiff in training, emergency incidents, wildfires, or in fire suppression during his firefighting career, also contained no warning that the turnouts contain PFAS or PFAS materials. Nor did these labels inform persons handling, wearing, or using the turnouts as they were intended to be handled, worn or used can result in exposure to PFAS and serious bodily harm.

122. Below are pictures of warning labels for turnouts manufactured, marked, sold and

distributed by Defendants MSA/Globe and Lion. As depicted below, the labels make no mention of PFAS, do not advise that the turnouts contain PFAS or PFAS materials, and contain no warning that handling, wearing, or using the turnouts as they were intended to be handled, worn or used can result in exposure to PFAS and serious bodily harm. Further, while the labels provide washing instructions, the instructions do not advise that turnouts should be washed in a commercial extractor to prevent cross-contamination and PFAS-exposure to family members who handle or wash the turnouts with other garments in home washing machines.



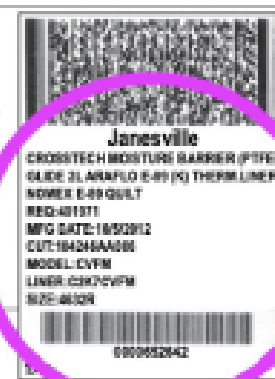
Garment Safety Label



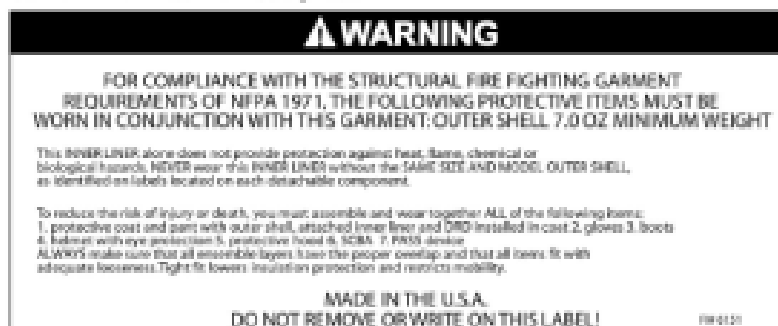
Garment Cleaning Label



Garment Information Label



Garment Liner Attachment Safety Label



Drag Rescue Device (DRD) Label

I. Defendants' MSDS Sheets Do Not Warn About PFAS or PFAS Exposure

123. A Material Safety Data Sheet (or "MSDS") is a document that Occupational Safety and Health Administration (OSHA) requires companies to provide to end users for products that contain substances or chemicals that are classified as hazardous or dangerous. Access to such information is necessary for Plaintiff to provide a safe and effective response in emergency situations.

124. The MSDS provided with Defendants' Class B foams did not- and to this day do not- state that these foams contain PFAS or PFAS-containing materials; that PFAS is persistent, toxic and

1 bio-accumulating; or that PFAS exposure causes serious bodily harm. To the contrary, the MSDS
 2 falsely stated that the Class B foams and/or their contents were not known carcinogens and did not
 3 cause birth defects.

4 125. Even now, the MSDS do not reflect the known serious health risks and hazards
 5 associated with exposure to PFAS in these Class B foams. For example, a MSDS updated on as
 6 recently as November 20, 2020 by Defendant National Foam for AFFF stated the product was not
 7 carcinogenic or toxic - contrary to decades of science.⁶⁶

8 **J. Defendants' Misrepresentations About PFAS Continue to this Day**

9 126. Despite their decades of knowledge about PFAS and its dangers, Defendants continue
 10 to make false claims, continue to misrepresent the safety of PFAS, and continue to minimize and fail
 11 to warn about the hazards of exposure to PFAS, or turnouts and Class B foams made with or
 12 containing PFAS.

13 127. Defendants' misinformation campaign is long-standing, and continues to this day.
 14 Some pertinent examples include:

- 15 a. 2017 - Defendant Lion's President, Stephen Schwartz, wrote a letter to
 16 the editor of the Columbus Dispatch, expressing outrage at the
 17 assertion in a government filing that firefighters may have been
 18 exposed to PFAS through turnout gear. Schwartz called this assertion
 19 false, stating that Lion's turnout gear is not treated or made with PFOS
 20 or PFOA2. "PFOAS and PFOSs have never been components of
 21 LION'S turn-out gear, either as a coating or as a textile." He
 22 acknowledged that turn-out gear is treated With PTFE to provide a
 23 durable water repellant, and that the textile industry in the past had
 24 used PFOA as a processing aid to manufacture PTFE moisture barrier
 25 films and repellants. "It is possible that trace amounts may have been
 present as a residue when the films and finishes were incorporated into
 LION's turn-out gear. However, based on all available scientific data,
 such nominal trace amounts, if they existed at all, would not have
 posed any health risk to firefighters. There is absolutely no connection
 at all between PFOS and firefighter turnout gear."⁶⁷
- b. 2018 - The National Fire Protection Association (which maintains

26 ⁶⁶ National Foam Safety Data Sheet for Centurion (TMC6) 6% Aqueous Film Forming Foam
 Concentrate (AFFF) (November 20, 2020), [https://nationalfoam.com/wp-content/
 uploads/sites/4/NMS340-Centurion-6-AFFF-Concentrate_11302020.pdf](https://nationalfoam.com/wp-content/uploads/sites/4/NMS340-Centurion-6-AFFF-Concentrate_11302020.pdf).

27 ⁶⁷ Letter from LION president Stephen A. Schwartz to Ala D. Miller, Editor, The Columbus
 28 Dispatch (October 30, 2017), [http://files.constantcontact.com/bf8abd7a001/01f5d727-d72e-42dc-
 971b-caa9c2855800.pdf](http://files.constantcontact.com/bf8abd7a001/01f5d727-d72e-42dc-971b-caa9c2855800.pdf).

committees on foams and turnouts that are comprised, in part, of certain Defendants) issued a publication listing 11 ways to minimize risk of occupational cancer-the suggestions centered on wearing turnouts for protection resulting from combustion or spills, and cleaning turnouts after exposure to chemicals. There was not a single mention of avoiding contact with foam and/or the risks of wearing turnouts containing PFAS or PFAS-containing materials.⁶⁸

- c. 2019 - Defendant 3M Vice President, Denise Rutherford, testified before Congress that she absolutely agreed with the statement that “the weight of current scientific evidence does not show that PFOS or PFOA cause adverse health effects in humans at current rates of exposure.”⁶⁹
- d. 2019 - The Fire Fighting Foam Council (of which many Defendants have been members since its inception in 2001) wrote in their newsletter that: “Short-chain (C6) fluorosurfactants do not contain or breakdown in the environment to PFOS or PFOA and are currently considered lower in toxicity and have significantly reduced bio-accumulative potential than long-chain PFAS.”⁷⁰
- e. 2020 - FluorCouncil - the lobbying arm of the PFAS industry - maintains that PFAS fluorotelomers that are in Class B foam and turnouts do not cause cancer, disrupt endocrine activity, negatively affect human development or reproductive systems, do not build up in the human body, and do not become concentrated in the bodies of living organisms.⁷¹
- f. 2020 - The Fire Fighting Foam Council website states: “The short-chain (C6) fluorosurfactants that have been the predominant fluorochemicals used in fluorotelomer-based AFFF for the last 25 years are low in toxicity and not considered to be bio-accumulative based on current regulatory criteria.”⁷²
- g. 2020 - The Fire Fighting Foam Council’s Best Practice Guidance for Use of Class B Foam-which was published in May 2016 and has not been updated to reflect the latest research - focuses entirely on eliminating and containing foam to minimize impact on the

⁶⁸ *11 Best Practices for Preventing Firefighter Cancer Outlined in New Report Put Out by VCOS and NVFC*, National Fire Protection Association Xchange (August 16, 2018), <https://community.nfpa.org/community/nfpa-today/blog/2018/08/16/11-best-practices-for-preventing-firefighter-cancer-outlined-in-new-report-put-out-by-vcos-and-nvfc>.

⁶⁹ Gabe Schneider, *3M Grilled over PFAS Chemicals at Congressional Hearing*, MinnPost (September 11, 2019), <https://www.minnpost.com/national/2019/09/3m-grilled-over-pfas-chemicals-at-congressional-hearing/>.

⁷⁰ *AFFF Update Newsletter*, Fire Fighting Foam Council (April 2019), <https://tinyurl.com/y57c5jwx>.

⁷¹ *An Important Update About FluoroCouncil*, FluoroCouncil, Global Industry Council for Fluoro Technology (last Visited September 7, 2020), <https://fluorocouncil.com/important-update-about-fluorocouncil/>.

⁷² *Fact Sheet on AFFF Fire Fighting Agents*, Fire Fighting Foam Council (2017), <https://tinyurl.com/yyxscyas>.

environment. It makes no mention of how to minimize the impact on firefighters who routinely handle, prepare, spray, or use Class B foam during training or in firefighting.⁷³

128. As frequent sponsors and advertisers in fire service publications, Defendants have been so influential in the industry that fire service leadership have echoed these narratives.

129. For example, in 2017, the International Association of Fire Fighters (“IAFF”), which represents more than 324,000 full-time professional firefighters, issued a statement that both mischaracterized and purported to state that the risks associated with exposure to PFAS and PFAS chemicals and materials in turnouts and Class B foams was minimal to non-existent. The statement even encouraged firefighters to continue to wear turnouts and use legacy Class B foams, creating a false sense that these PFAS-containing turnouts and foams were safe. The statement reads, in relevant part:

Importantly, PFOA use has been almost completely phased out in the US....Fire fighters may have additional PFOA exposure sources such as older Class B firefighting foams. If PFOA is a combustion product of PFOA-containing consumer products made prior to phasing out use of this chemical, fire fighters Will be exposed in fire suppression activities. However, the data are too limited at present to determine this. PFOA is unlikely to be a component in recently US manufactured turnout gear. However, if PFOA is a combustion product, it may be present as a contaminant on turnout gear. PFOA may also be present as a manufactured component of legacy turnout gear....The exposure contribution from any such PFOA content is likely to be minimal since volatilization from the manufactured product would be required....At this time, IAFF does not recommend that legacy turnout gear be replaced outside of its lifecycle. Fire fighters wishing to minimize PFOA exposure should continue to wear their PPE...and regularly decontaminate their turnout gear. IAFF will continue to monitor developments and update this fact sheet should new information become available.⁷⁴

130. The IAFF maintained this position until January 2021 when IAFF members demanded that the IAFF leadership hold turnout and Class B foam manufacturers accountable.⁷⁵

⁷³ *Best Practice Guidance for Use of Class B Firefighting Foams*, Fire Fighting Foam Council (May 2016), <https://tinyurl.com/y29mfh69>.

⁷⁴ *Statement on PFOA and Turnout Gear*, International Association of Firefighters, (May 2017), <https://tinyurl.com/y29mfh69>

⁷⁵ As a result of pressure by its firefighter members, IAFF leadership has only recently begun to take action related to PFAS exposure. At the IAFF Annual Meeting in January 2021, two

131. Because of these and other false claims and misrepresentations on the part of Defendants, Plaintiff did not know and, in the exercise of reasonable diligence, could not have known that the turnouts and Class B foams he used contained PFAS or PFAS-containing materials, and caused Plaintiff to be exposed to PFAS and/or PFAS-containing materials, causing him to suffer cancers and other serious illnesses as a result of such exposure.

132. Plaintiff only learned for the first time that his cancer was related to PFAS exposure until on or around August 2021 when discussing his cancer diagnosis with a colleague in the same union, Cal Fire Local 2881. Plaintiff's colleague told him about an article relating to the pervasiveness of the cancer related to the PFAS or PFAS-containing materials. Upon his initial discovery, Plaintiff discovered the numerous lawsuits and articles related to the PFAS or PFAS-containing materials and various forms of cancer. When Plaintiff's Union received notice PFAS or PFAS-containing materials caused cancer on or around August 2021, flyers set out to warn individuals and to encourage medical testing. Nothing was posted prior.

133. Also, in January 2021, Defendants DuPont and Chemours along with Corteva (the agricultural unit of DuPont that it spun off in 2019) announced a cost-sharing agreement worth \$4 billion to settle lawsuits involving the historic use of PFAS - thereby acknowledging, at long last, the significant harm their PFAS chemicals have caused to human health and the environment.

K. New Research Indicates That Firefighters are at Significant Risk of Harm From Exposure to PFAS in Turnouts and Class B Foams - But Defendants Continue to

groundbreaking PFAS-related firefighter safety resolutions passed with the support of 99% of the membership. The resolutions require IAFF to: (1) sponsor independent testing of turnouts for PFAS and PFAS-related hazards, (2) oppose the use of PFAS and PFAS-containing materials in turnouts, (3) require manufacturers to cease using PFAS in their firefighting products (4) identify which manufacturers will not cease using PFAS, (5) issue an advisory to fire departments to stop sending used or old turnouts to communities that are not able to buy new gear and instead provide grants to purchase new gear, and (6) cease accepting financial sponsorships from any PFAS/chemical-related companies unless it is to purchase PFAS-free turnout gear. Andrew Wallender, *PFAS Resolutions Overwhelmingly Approved by Firefighters' Union*, Bloomberg Law (February 1, 2021), <https://news.bloomberglaw.com/daily-labor-report/pfas-resolutions-overwhelmingly-approved-by-firefighters-union>; San Francisco Firefighters Cancer Prevention Foundation, (last Visited February 26, 2021), <https://www.sffcpf.org/resolutions-to-protect-members-from-toxic-substances-in-ppe/>.

Discount or Deny These Risks

134. While historical research (and follow-on litigation) has centered on environmental impacts and environmental exposures associated with PFAS and PFAS-containing products, recent studies have focused specifically on the serious health impacts to firefighters stemming from their occupational exposure to turnouts and Class B foams containing PFAS.

135. In October 2019, for example, an expert panel of the International Pollutants Elimination Network (IPEN), an international non-profit organization comprised of over 600 public interest non-governmental organizations dedicated to improving global chemical waste policies, published a scientific paper that, in the words of its authors, “presents unequivocal evidence from recent studies that firefighters” using Class B foams (primarily AFFF) “have unexpectedly elevated blood levels” of PFAS, including, specifically, PFHXS and PFOS, With PFHXS (a short-chain, C6 PFAS) being “potentially of greater concern than PFOS given its much longer elimination half-life in humans.”⁷⁶ The paper explains that “[f]irefighters can be significantly exposed to PFHXS and other PFAS from firefighting foam via various occupational mechanisms including direct exposure during use as well as exposure from contaminated personal protective equipment (PPE), handling of contaminated equipment, managing PFAS foam wastes, occupation of contaminated fire stations and consumption of contaminated local water and produce. Cross-contamination and legacy PFAS residues from inadequately decontaminated appliances after transitioning to fluorine-free foam can remain a long-term problem.”⁷⁷ The panel concluded that “[o]ngoing exposure to PFHXS, PFOS and other PFAS amongst firefighters remains a major occupational health issue,” noting that “[b]ioaccumulation and very slow bio-elimination may be very significant influencing factors in PFHXS exposure” in firefighters.⁷⁸ “Of greater concern,” the panel observed, “is that firefighter blood levels for PFOS and PFHXS are many times higher than the median values for the general...population.”⁷⁹

⁷⁶ *Perfluorohexane Sulfonate (PFHxS) - Socio-Economic Impact, Exposure and the Precautionary Principle Report*, IPEN Expert Panel (October 2019), https://ipen.org/sites/default/files/documents/pfhxs_socio-economic_impact_final_oct.2019.pdf.

⁷⁷ *Id.* at p. 25.

⁷⁸ *Id.*

⁷⁹ *Id.*

136. In June 2020, scientists at the University of Notre Dame published a ground-breaking study on PFAS in turnout gear, and the exposure risks posed to firefighters that wear, wore, or handle such gear (“Notre Dame Turnout Study”). The Notre Dame Turnout Study analyzed over 30 sets of used and unused (still in their original packaging) turnout gear made by six U.S. manufacturers, including Defendants MSA/Globe, Lion and Honeywell, over several production years, as listed below:⁸⁰

PPE gear manufacturers sampled:	# samples
Globe Manufacturing (Pittsfield MA),	11
Lion Group (Dayton OH),	12
Honeywell First Responder (Dayton, OH),	2
Lakeland Fire (Decatur, AL)	2
Quest Fire Apparel (Saratoga Springs, NY)	1
Quaker Safety (Quakertown, PA)	2

The type and number of turnout gear samples used in this study.

137. The Notre Dame Turnout Study noted that these manufacturers’ turnout gear (or personal protective equipment-PPE, as it is described in the study) are manufactured “from textiles that are made from fluoropolymers (one form of PFAS) or extensively treated by PFAS in the form of side-chain fluoropolymers.”⁸¹ According to the researchers, “[t]hese PFAS include fluoropolymer materials such as PTFE used as a moisture barrier in the inner layers of turnout gear.”⁸² The study found significant levels of PFAS chemicals- including PFOA, PFOS, PFBA, PFPeA, PFHXA, PFHpA, PFNA, PFDA, PFUnA, PFDoA, PFTTrDA, PFTToDA, PFBS, PFOSA, N-EtFOSA, MeFOSAA, N-MeFOSE, N-EtFOSE and 6:20FTS - in both new and used turnout gear, and across layers, portions, and materials in the turnout gear, including in material layers that are not intentionally treated with PFAS by the manufacturer, thereby providing “the first evidence that suggests PFAS appear to migrate from the highly fluorinated layers and collect in the untreated layer of clothing worn against the skin.”⁸³

⁸⁰ *Id.* at fn. 7.

⁸¹ *Id.* at p. A.

⁸² *Id.*

⁸³ *Id.* at p. C.

138. These findings suggest that, as the garments are worn, PFAS from the outer shell and the moisture barrier can migrate from the turnouts and contaminate both the firefighter, their apparatus and workplace with PFAS. The analysis also indicated that fluoropolymers from the outer layer decompose into other PFAS, including PFOA.

Table 2. Quantities of Target PFAS (in ppb) Found in US Turnout Gear by LC-MS/MS Analysis

values in ppb	jacket 2008 unused			pants 2014 used			jacket 2008 used	jacket 2017 unused
	thermal liner	moisture barrier	outer shell	thermal liner	moisture barrier	outer shell	moisture barrier	moisture barrier
PFBA	<MDL	12.8	10.6	139	615	21.5	20.5	991
PFPeA	<MDL	12.6	17.8	228	104	164	18.1	2.49
PFHxA	<MDL	30.5	36.9	199	28.6	10.9	35.8	36.9
PFHpA	<MDL	12.4	25.4	105	5.82	2.23	14.3	25.4
PFOA	78	46	182	850	71	97	37	<MDL
PFNA	2.63	<MDL	8.2	25.3	1.95	<MDL	2.76	<MDL
PFDA	2.98	6.51	5.51	133	<MDL	<MDL	23.7	<MDL
PFUnA	<MDL	<MDL	<MDL	7.96	<MDL	<MDL	2.51	<MDL
PFDeA	<MDL	5.01	<MDL	68.6	<MDL	<MDL	25.9	<MDL
PFBS	283	140	142	53 400	47 900	1050	230	90 400
PFOS	<MDL	<MDL	<MDL	7	<MDL	<MDL	2	<MDL
6:2 FTS	<MDL	<MDL	<MDL	25.9	12.9	<MDL	<MDL	<MDL
8:2 FTS	<MDL	<MDL	<MDL	11.1	<MDL	<MDL	<MDL	<MDL

139. “Startlingly,” researchers reported, “garment to hand transfer of total fluorine in the ppm range was also observed when researchers simply manipulated the textiles in [the] laboratory.”⁸⁴ The accumulation of PFAS on researchers’ hands strongly suggests that transference of ppm levels of PFAS can occur merely by handling the turnouts and that PFAS exposure pathways include inhalation, ingestion and/or absorption (through dermal contact) - all of which DuPont internally acknowledged as being toxic in 1980. Such exposure pathways are a concern not only for firefighters that rely on turnouts to protect them from heat, fire, water and chemical hazards in the field, but to family members who may be exposed to the PFAS in turnouts as the result of home washing or storage. Lead researcher Graham Peaslee commented that turnouts are “the most highly fluorinated textiles I’ve ever seen”⁸⁵ and that the level of PFAS in the turnout gear means that firefighters are

⁸⁴ *Id.*

⁸⁵ Raleigh McElvery, *Protective Gear Could Expose Firefighters to PFAS*, Chemical and Engineering News (July 1, 2020), <https://cen.acs.org/environment/persistent-pollutants/Protective-gear-expose-firefighters-PFAS/98/i26?fbclid=IwAR3ktyIcasjnxHiv3RNDRJldZmunQleAEoS3Av225uOscj2hFbffVcO3-Go>

1 “swimming in a sea of [PFAS]. Those numbers for scientists are scarily high...”⁸⁶

2 140. Despite these findings, Defendants have been quick to mischaracterize, dismiss or
3 downplay the significance of the Notre Dame Turnout Study. Defendant MSA/Globe, when
4 contacted about the study and asked whether Globe planned to study this issue and find an alternative
5 to PFAS for turnouts, merely responded thusly: “[P]rotecting (firefighters) is Globe’s business; every
6 piece of our turnout gear meets or exceeds applicable industry standards.”⁸⁷

7 141. Defendant Lion’s responses have been similar, and have also dismissed or minimized
8 the significance of the Notre Dame Turnout Study’s findings. Lion issued a Customer Safety Alert
9 for PFOA and Turnout Gear stating: “Your LION turnout gear continues to be safe and ready for
10 action especially when properly maintained. It is extremely important that firefighters continue to
11 wear and properly care for their gear to stay safe on the job.”⁸⁸

12 142. The Customer Safety Alert goes on to stress that Lion does not use PFOA or PFOS
13 (two long-chain PFAS chemicals) in its turnouts.⁸⁹ It does not, however, address that the maker’s
14 turnouts in fact contain other PFAS chemicals, nor warn firefighters or the public about health harms
15 associated with exposure to these toxic, bio-accumulating chemicals.

16 143. Defendant Lion’s paid consultant, Dr. Paul Chrostowski, also has taken aim at the
17 Notre Dame Turnout Study and its findings. Refuting a Fire Rescue magazine article about the
18 study,⁹⁰ Chrostowski repeated Lion’s website statement that “PFOA was never part of the gear itself
19 and frequent independent testing has found only trace amounts of it in any of the gear - not nearly
20
21

22 ⁸⁶ Andrew Wallender, *Firefighters Face New Possible Risk From Toxic PFAS: Their Gear*,
23 Bloomberg Law (June 23, 2020), <https://news.bloomberglaw.com/pfas-project/firefighters-face-new-possible-risk-from-toxic-pfas-their-gear>.

24 ⁸⁷ Blair Miller, *Local Firefighters Concerned About Potentially Dangerous Chemicals on Gear*,
25 Boston 25 News (February 26, 2019), <https://www.boston25news.com/news/local-firefighters-facing-concerns-over-potentially-dangerous-chemicals-on-gear/92523612/>

26 ⁸⁸ *LION Customer Safety Alert - PFOA and Turnout Gear* (April 24, 2019),
https://cdn2.hubspot.net/hubfs/3475623/LION_PFOA_factsheet_042419.pdf.

27 ⁸⁹ *Id.*

28 ⁹⁰ Larissa Conroy, *What If I Told You That Your Bunker Gear Was Causing Cancer?*, Fire Rescue
(May 28, 2020), <https://www.firefighternation.com/firerescue/what-if-i-told-you-that-your-bunker-gear-was-causing-cancer/#gref>.

1 enough to cause concern, and in amounts similar to consumer products.”⁹¹ Chrostowski went on to
 2 say “[t]he fact is that one may find trace amounts of ‘short-chain’ PFAS such as PFBS and PFHXA
 3 in firefighting textiles, but the scientific research shows that these materials are far less toxic than
 4 even PFOA and at the tiny trace levels the risk are extremely 10W based on numerous credible
 5 published scientific research papers.”⁹² Finally, Chrostowski falsely stated that the link between
 6 PFAS exposure and cancer is “extremely weak.”⁹³

7 144. And yet, Lion concedes that dermal absorption is a pathway of exposure to cancer-
 8 causing chemicals for firefighters. In a Not in Our House cancer awareness fact sheet that currently
 9 appears on the company’s website, Lion warns firefighters: “For every 5 degree increase in
 10 temperature, skin becomes 400% more absorbent. The hotter you are, the more carcinogens your skin
 11 absorbs.”⁹⁴ This statistic is alarming given that the core body temperature of firefighters routinely
 12 increases during firefighting activities While wearing turnouts Which contain known carcinogens.⁹⁵

13 145. The IAFF holds a yearly cancer summit and yet has done little to address the PFAS in
 14 turnouts.⁹⁶ Defendants, including at least DuPont, Gore, Lion and MSA (Globe), have been regular

15
 16 ⁹¹ Paul Chrostowski, Ph.D., *QEP, Research and Independent Testing Shows Firefighters’ Turnout Gear Remains Safe Despite Claims*, Fire Rescue (June 3, 2020).

17 <https://firerescuemagazine.firefighternation.com/2020/06/03/research-and-independent-testing-shows-firefighters-turnout-gear-remains-safe-despite-claims/-gref>.

18 ⁹² *Id.*

19 ⁹³ *Id.*

20 ⁹⁴ LION website, [https://cdn2.hubspot.net/hubfs/3475623/NOT IN OUR HOUSE Tip Sheet Infographic \(02-02-19\).pdf](https://cdn2.hubspot.net/hubfs/3475623/NOT%20IN%20OUR%20HOUSE%20Tip%20Sheet%20Infographic%20(02-02-19).pdf) (last Visited February 26, 2021).

21 ⁹⁵ Nancy Espinoza, *Can We Stand the Heat?*, Journal of Emergency Medical Services, (April 30, 2008), <https://www.jems.com/operations/can-we-stand-heat-study-reveal/>; Gavin P. Horn, et al., *Thermal Response to Firefighting Activities in Residential Structure Fires: Impact of Job Assignment and Suppression Tactic*, Ergonomics (July 31, 2017), <https://tinyurl.com/4j2mz7f7>.

22 ⁹⁶ As alleged above, in para. 130, fn. 77, IAFF has only recently begun to take action related to
 23 PFAS exposure due to pressure from its firefighter members. At the IAFF Annual Meeting in
 24 January 2021, two groundbreaking PFAS-related firefighter safety resolutions passed with the
 25 support of 99% Of the membership. The resolutions require IAFF to: (1) sponsor independent
 26 testing of turnouts for PFAS and PFAS-related hazards, (2) oppose the use of PFAS and PFAS
 27 containing materials in turnouts, (3) require manufacturers to cease using PFAS in their firefighting
 28 products (4) identify which manufacturers will not cease using PFAS, (5) issue an advisory to fire
 departments to stop sending used or old turnouts to communities that are not able to buy new gear
 and instead provide grants to purchase new gear, and (6) cease accepting financial sponsorships
 from any PFAS/chemical-related companies unless it is to purchase PFAS-free turnout gear.

sponsors of the IAFF Cancer Summit.

146. At this event, as well as in firefighter cancer-related publications, programs and events, Defendants repeatedly used the summit as an opportunity to push the narrative that incidence of cancer among firefighters is attributable either to other chemicals encountered in the line of duty, or firefighters' failure to wash their turnouts after every call. Not once have the turnout Defendants admitted that the PFAS materials in their products has been found to be carcinogenic, and that the very equipment that should be protecting firefighters are causing the most harm. Further, Lion's recently launched "Not in Our House" cancer awareness program is sadly ironic in that it encourages firefighters to make a pledge ("I Will make every effort to protect myself and my team by doing my part to take precautions that Will minimize the risk of exposure to carcinogens that may lead to cancer. . .") While refusing to take any responsibility for continually exposing firefighters to carcinogens in their protective gear.⁹⁷

147. Plaintiff deserves more. He is the first to respond to emergencies faced by his community, and never hesitates to help. Whether delivering a baby, responding to a fire, fighting California wildfires, medical emergency, accident, mass shooting, terrorist attack, natural disaster, or teaching kids about fire safety, firefighters always put the community first. When a child is drowning in a pool or a family is caught in a burning house, he does not stop to calculate whether he will benefit by doing the right thing. He is a true public servants. He steps in and does what is needed when it is needed the most. His health, safety and well-being must be of the highest priority.

L. Plaintiff's Colorectal cancer diagnosis from PFAS

148. After years of Defendants suppressing research showing PFAS to be toxic and associated with cancer and other serious illnesses, misrepresenting the safety of PFAS and PFAS

Andrew Wallender, *PFAS Resolutions Overwhelmingly Approved by Firefighters' Union*, Bloomberg Law (February 1, 2021), <https://news.bloomberglaw.com/daily-labor-report/pfas-Resolutions-overwhelmingly-approved-by-firefighters-union>; San Francisco Firefighters Cancer Prevention Foundation, (last Visited February 26, 2021), <https://www.sffcpf.org/resolutions-to-protect-members-from-toxic-substances-in-ppe/>.

⁹⁷ Rachel Zoch, *Take A Pledge To Stop Cancer At the Door*, Fire Rescue 1 (January 28, 2019), <https://www.firerescue1.com/fire-products/personal-protective-equipment-ppe/articles/take-a-pledge-to-stop-cancer-at-the-door-e8bn7uAbtIXWdQau/>.

1 containing turnouts and Class B foam, and attributing the cause of firefighters' cancers and other
2 serious illnesses to factors other than turnouts and Class B foams (or the PFAS chemicals and
3 materials in these foams and turnouts), Plaintiff could not know and, in fact, did not know that
4 significant levels of PFAS was likely to or had bio-accumulated in his body or the cause of his
5 cancer.

6 149. At the time Plaintiff was diagnosed with colon cancer on December 19, 2018, he had
7 no knowledge or reason to believe that PFAS or PFAS-containing materials could be the cause of his
8 cancer, nor could he know that fire fighters were exposed to the foam at such high levels. In February
9 2019, Plaintiff had surgery to remove the tumor in his rectum. He was required to wear a colostomy
10 bag for three months. Once removed, it appeared he was in remission.

11 150. In February 2020, a year after removal of the cancer, Plaintiff returned for blood
12 work. Results demonstrated that the cancer returned outside of his rectum along his coccyx. He
13 immediately started chemotherapy and radiation. In July 2020, he underwent a 14 hour surgery which
14 permanently removed parts of his colon, bowl, tail bone. He requires the use of a permanent
15 colostomy bag, has urinary issues, and permanent nerve damage.

16 151. Plaintiff did not learn of his PFAS exposure until on or around August 2021 when
17 discussing his cancer diagnosis with a colleague in the same union, Cal Fire Local 2881. Plaintiff's
18 colleague told him about an article relating to the pervasiveness of the cancer related to the PFAS or
19 PFAS-containing materials. Upon his initial discovery, Plaintiff discovered the numerous lawsuits
20 and articles related to the PFAS or PFAS-containing materials and various forms of cancer. When
21 Plaintiff's Union received notice PFAS or PFAS-containing materials caused cancer on or around
22 August 2021, flyers set out to warn individuals and to encourage medical testing. Nothing was posted
23 prior.

24 152. Based on all of the foregoing, Plaintiff, brings this action for damages and for other
25 appropriate relief sufficient to compensate him for the significant harm Defendants' PFAS chemicals
26 and PFAS-containing products have caused.

27 **EQUITABLE TOLLING OF APPLICABLE STATUE OF LIMITATIONS**

28 153. Plaintiffs incorporate by reference all prior paragraphs of this complaint as though

1 fully set forth herein.

2 **A. Fraudulent Concealment**

3 154. Defendants have known or should have known about the hazardous toxicity,
4 persistence, and bioaccumulation associated with the use of PFAS and PFAS-containing materials
5 since at least the 1960s and as late as the early 1990s when study after study showed not only
6 unacceptable levels of toxicity and bioaccumulation in human blood, but links to increased incidence
7 of liver damage, various cancers and birth defects.

8 155. Through no fault or lack of diligence, Plaintiff was deceived regarding the safety of
9 turnouts and Class B foam and could not reasonably discover the hazardous toxicity, persistence, and
10 bioaccumulation associated with the use of PFAS or PFAS-containing materials in turnouts and Class
11 B foam, nor Defendants' deception with respect to the hazardous toxicity, persistence, and
12 bioaccumulation associated with the use of PFAS or PFAS-containing materials in turnouts and Class
13 B foam.

14 156. Plaintiff did not discover and did not know of any facts that would have caused a
15 reasonable person to suspect that Defendants were concealing the hazardous toxicity, persistence, and
16 bioaccumulation associated with the use of PFAS or PFAS-containing materials in turnouts and Class
17 B foam. As alleged herein, the existence of the hazardous toxicity, persistence, and bioaccumulation
18 associated with the use of PFAS or PFAS-containing materials in turnouts and Class B foam was
19 material to Plaintiff at all relevant times. Within the time period of any applicable statutes of
20 limitations, Plaintiff could not have discovered through the exercise of reasonable diligence the
21 existence of the hazardous toxicity, persistence, and bioaccumulation associated with the use of
22 PFAS or PFAS-containing materials in turnouts and Class B foam, nor that Defendants were
23 concealing the fact of the hazardous toxicity, persistence, and bioaccumulation associated with the
24 use of PFAS or PFAS-containing materials in turnouts and Class B foam.

25 157. Defendants did not fully disclose the seriousness of the hazardous toxicity,
26 persistence, and bioaccumulation associated with the use of PFAS or PFAS-containing materials in
27 turnouts and Class B foam, but instead ignored and/or concealed the defect from Plaintiffs and the
28 public, and refused to provide safe alternatives to PFAS or PFAS-containing materials in turnouts

1 and Class B foam.

2 158. At all times, Defendants are and were under a continuous duty to disclose to Plaintiff
3 the hazardous toxicity, persistence, and bioaccumulation associated with the use of PFAS or PFAS
4 containing materials in turnouts and Class B foam.

5 159. Defendants knowingly, actively, and affirmatively concealed the facts alleged herein.
6 Plaintiff reasonably relied on Defendants' knowing, active, and affirmative concealment.

7 160. For these reasons, any and all applicable statutes of limitations have been tolled as a
8 consequence Defendants' ongoing knowledge, active concealment, and denial of the facts alleged
9 herein.

10 **B. Estoppel**

11 161. Defendants were and are under a continuous duty to disclose to Plaintiff the hazardous
12 toxicity, persistence, and bioaccumulation associated with the use of PFAS or PFAS containing
13 materials in Class B foam and turnouts.

14 162. Instead, Defendants actively concealed the hazardous toxicity, persistence, and
15 bioaccumulation associated with the use of PFAS and PFAS-containing materials in Class B foam
16 and turnouts; and knowingly made misrepresentations about the quality, reliability, characteristics,
17 safety and performance of Class B foam and turnouts.

18 163. Plaintiff reasonably relied upon Defendants' knowing and affirmative
19 misrepresentations, and/or active concealment, of these facts.

20 164. Based on the foregoing, Defendants are estopped from relying on any and all
21 applicable statutes of limitations in defense of this action.

22 **C. Discovery Rule**

23 165. The causes of action alleged herein did not accrue until Plaintiff discovered that the
24 hazardous toxicity, persistence, and bioaccumulation associated with the use of PFAS or PFAS
25 containing materials in Class B foam and turnouts.

26 166. Plaintiff, however, had no realistic ability to discern or suspect that the hazardous
27 toxicity, persistence, and bioaccumulation associated with the use of PFAS or PFAS-containing
28 materials in Class B foam and turnouts were a substantial cause of their injuries until-at the earliest-

1 August 2021 when Plaintiff first learned that PFAS or PFAS-containing materials could cause
2 cancer.

3 167. Even then, Plaintiff would have had no reason to discover his causes of action,
4 because of Defendants' active and ongoing concealment of the true nature of the hazardous toxicity,
5 persistence, and bioaccumulation associated with the use of PFAS or PFAS-containing materials in
6 Class B foam and turnouts, and their prior knowledge of it.

7 168. Accordingly, Defendants are precluded by the Discovery Rule and/or doctrine of
8 fraudulent concealment, and/or the doctrine of estoppel from relying upon any and all applicable
9 statutes of limitations.

10 **FIRST CAUSE OF ACTION**

11 **(STRICT LIABILITY – DESIGN DEFECT AGAINST ALL DEFENDANTS)**

12 169. This cause of action is asserted against all Defendants on behalf of all of the Plaintiff.

13 170. Plaintiff incorporates by reference all prior paragraphs of this complaint, as though
14 fully set forth herein.

15 171. Each Defendant, their predecessors—in-interest, and/or their alter egos, and/or entities
16 they have acquired, have engaged in the business of manufacturing, distributing, supplying, testing,
17 labeling, promoting, or advertising of turnouts and/or Class B foam and through that conduct have
18 knowingly placed PFAS-containing products into the stream of commerce with full knowledge that
19 they were sold to fire departments or to companies that sold turnouts and/or Class B foam to fire
20 departments for use by firefighters such as Plaintiff, who are exposed to PFAS through ordinary and
21 foreseeable uses for the purpose of firefighting activities and training.

22 172. Defendants intended that the turnouts and/or Class B foam they were manufacturing,
23 selling, distributing, supplying, promoting, and or selling would be used by firefighters, including
24 Plaintiff, without any substantial change in the condition of the products from when it was initially
25 manufactured, sold, distributed, and marketed by Defendants. Turnouts and/or Class B foam were not
26 safe for use by firefighters even when used as directed by the manufacturer and for its intended
27 purpose for firefighting activities which include training, extinguishment, ventilation, search-and-
28 rescue, salvage, containment, and overhaul.

1 173. Further, knowing of the dangerous and hazardous properties of turnouts and Class B
2 foam, Defendants could have manufactured, marketed, distributed, and sold alternative designs or
3 formulations of turnouts and/or Class B foam that did not contain PFAS.

4 174. These alternative designs and/or formulations were already available, practical,
5 similar in cost, and technologically feasible.

6 175. The use of these alternative designs would have reduced or prevented the reasonably
7 foreseeable harm to Plaintiff that was caused by the Defendants' manufacture, marketing, and sale of
8 turnouts and/or Class B foam containing PFAS and PFAS-containing materials.

9 176. Additionally, the turnouts and/or Class B foam that were designed, manufactured,
10 marketed, tested, advertised, marketed, promoted, sold, and distributed by the Defendants contained
11 PFAS or PFAS-containing materials that were so toxic and unreasonably dangerous to human health
12 and the environment, with the toxic chemicals being so mobile and persistent, that the act of
13 designing, formulating, manufacturing, marketing, distributing, and selling these products was
14 unreasonably dangerous under the circumstances.

15 177. The turnouts and/or Class B foam designed, manufactured, marketed, tested,
16 advertised, marketed, promoted, sold and distributed by the Defendants were dangerous and
17 defective in design or formulation because, at the time in which the products left the hands of the
18 manufacturer or distributors, the foreseeable risks exceeded the benefits associated with the design or
19 formulation of turnouts and/or Class B foam.

20 178. The turnouts and/or Class B foam designed, manufactured, marketed, tested,
21 advertised, marketed, promoted, sold, and distributed by the Defendants were dangerous and
22 defective in design or formulation because, when the PFAS-containing products left the hands of the
23 manufacturer or distributors, said products were unreasonably dangerous, unreasonably dangerous in
24 normal use, and were more dangerous than an ordinary consumer-firefighter would expect.

25 179. The turnouts and/or Class B foam were in a defective condition and unsafe, and
26 Defendants knew or had reason to know that these PFAS-containing products were defective and
27 unsafe, especially when used in the form and manner as provided by Defendants. In particular,
28 Defendants PFAS-containing products were defective in the following ways:

1 180. When placed in the stream of commerce, Defendants' PFAS-containing turnouts
2 and/or Class B foam were defective in design and formulation and as a result failed to meet ordinary
3 users' expectations as to their safety and failed to perform as an ordinary user would expect;

4 181. When placed in the stream of commerce, Defendants' PFAS-containing turnouts
5 and/or Class B foam were defective in design and formulation, and as a result, dangerous to an extent
6 beyond which an ordinary consumer-firefighter would anticipate.

7 182. When placed in the stream of commerce, Defendants' PFAS-containing turnouts
8 and/or Class B foam were unreasonable dangers in that they were hazardous and posed a grave risk
9 of cancer and other serious illnesses when used in a reasonably anticipated manner.

10 183. When placed in the stream of commerce, Defendants' PFAS-containing turnouts
11 and/or Class B foam contained unreasonably dangerous design defects and were not reasonably safe
12 when used in a reasonably anticipated manner.

13 184. When placed in the stream of commerce, Defendants' PFAS-containing turnouts
14 and/or Class B foam did not provide an adequate warning of the potential harm that might result from
15 exposure to PFAS and/or emitted from the turnouts and/or Class B foam and, alternatively, did not
16 have adequate instructions for safe use of the products.

17 185. Exposure to PFAS presents a risk of grave and harmful side effects and injuries that
18 outweigh any potential utility stemming from their use;

19 186. Defendants knew or should have known at the time of manufacturing, selling,
20 distributing, promoting or marketing their PFAS-containing turnouts and/or Class B foam that
21 exposure to PFAS could result in cancer and other grave and serious illnesses and injuries as alleged
22 herein.

23 187. The foreseeable risk of harm could have been reduced or eliminated by the adoption
24 of a reasonable, alternative design that was not unreasonably dangerous.

25 188. Plaintiff used these PFAS-containing products in the ways that Defendants intended
26 them to be used.

27 189. Plaintiff used these PFAS-containing produces in ways that were foreseeable to
28 Defendants.

1 190. Plaintiff was exposed to PFAS by using Defendants' turnouts and/or Class B foam in
 2 the course of their employment, as described above, without knowledge of turnouts' and/or Class B
 3 foam's dangerous propensities.

4 191. The design defect in turnouts and/or Class B foam containing PFAS exposed Plaintiff
 5 to toxic levels of PFAS and therefore, was a substantial factor in causing Plaintiff's injuries and
 6 damages as described herein.

7 192. As a result of Defendants' design and formulation of a defective product, Defendants
 8 are strictly liable in damages to Plaintiff.

9 193. As a direct and proximate result of the foregoing acts and omissions, Plaintiff suffered
 10 the injuries and damages described herein.

11 194. Defendants acted with willful or conscious disregard for the rights, health, and safety
 12 of Plaintiff, as described herein, thereby entitling Plaintiff to an award of punitive damages.

13 **SECOND CAUSE OF ACTION**

14 **(STRICT LIABILITY – FAILURE TO WARN AGAINST ALL DEFENDANTS)**

15 195. This cause of action is asserted against all Defendants on behalf of Plaintiff.

16 196. Plaintiff incorporates by reference all prior paragraphs of this complaint, as though
 17 fully set forth herein.

18 197. Each Defendant, their predecessors—in-interest, and/or their alter egos, and/or entities
 19 they have acquired, have engaged in the business of manufacturing, distributing, supplying, testing,
 20 labeling, promoting, or advertising of turnouts and/or Class B foam containing PFAS or PFAS
 21 containing materials and, through that conduct, have knowingly placed PFAS-containing products
 22 into the stream of commerce with full knowledge that they were sold to fire departments or to
 23 companies that sold turnouts and/or Class B foam to fire departments for the use by firefighters such
 24 as Plaintiff, who was exposed to PFAS through ordinary and foreseeable uses for the purpose of
 25 firefighting activities and training.

26 198. The products complained of were manufactured, designed, sold, supplied and/or
 27 distributed by each of the Defendants and used by and/or in the vicinity of Plaintiff during his
 28 lifetime and/or he was exposed to PFAS while using turnouts and/or Class B foam in the ordinary

1 course of performing his duties as a firefighter.

2 199. Defendants expected that the PFAS-containing products they were manufacturing,
3 selling, distributing, supplying, and/or promoting would reach firefighters, Plaintiff, without any
4 substantial change in the condition of the products from when it was initially manufactured, sold,
5 distributed, and marketed by Defendants.

6 200. Defendants knew or should have reasonably known that the manner in which they
7 were manufacturing, marketing, and selling turnouts and/or Class B foam containing PFAS was
8 hazardous to human health.

9 201. The potential risks of using PFAS-containing products presented a substantial danger
10 to firefighters, including Plaintiff, when the turnouts and/or Class B foam were used or worn in an
11 intended or reasonably foreseeable way.

12 202. Plaintiff used Class B foam and wore turnouts in the intended or reasonably
13 foreseeable way in the ordinary course of performing his duties as a firefighter, including fire
14 suppression and fire suppression training.

15 203. The turnouts and/or Class B foam manufactured, marketed, and sold by the
16 Defendants was dangerous and defective because the foreseeable risk of harm could have been
17 reduced or eliminated by the adoption of a reasonable, alternative design that was not unreasonably
18 dangerous.

19 204. Defendants' products were in a defective condition and unreasonably dangerous, in
20 that turnouts and/or Class B foam which, by design, contain PFAS or PFAS-containing products, are
21 deleterious, toxic, and highly harmful to Plaintiff.

22 205. Defendants knew or should have reasonably known that exposure to PFAS was
23 hazardous to human health, but:

- 24 a. Did not provide an adequate warning of the potential harm that might result
25 from exposure to PFAS or PFAS-containing materials in turnouts and/or Class B foam;
26 b. Did not have adequate instructions for safe use of the products;
27 c. Did not have warnings to persons, such as Plaintiff, who had been, or
28 reasonably may have been, exposed to Defendants' turnouts and/or Class B

1 foam, of their disease potential, the proper steps to take to reduce the harmful
2 effects of previous exposure, the need to have periodic medical examinations
3 including the giving of histories which revealed the details of the previous
4 exposure, and the need to have immediate and vigorous medical treatment for
5 all related adverse health effects;

6 d. Did not manufacture, market, promote, distribute or sell reasonably
7 comparable products not containing PFAS when it became feasible to design.

8 206. At the time of manufacture, distribution, promotion, labeling, distribution, and/or sale,
9 Defendants could have provided warnings or instructions regarding the full and complete risks of
10 turnouts and/or Class B foam containing PFAS or PFAS-containing materials, because Defendants
11 knew or should have known of the unreasonable risks of harm associated with the use of and/or
12 exposure to such products.

13 207. At all relevant time, Defendants' turnouts and/or Class B foam did not contain an
14 adequate warning or caution statement, which was necessary.

15 208. Plaintiff was unaware of the defective and unreasonably dangerous condition of
16 Defendants' products at a time when such products were being used for the purposes for which they
17 were intended, and Plaintiff was exposed to PFAS released from the Defendants' turnouts and/or
18 Class B foam.

19 209. Plaintiff did not and could not have known that the use of turnouts and/or Class B
20 foam in the ordinary course of performing his duties as a firefighter could be hazardous to his health,
21 bio-accumulate in the blood, and cause serious health effects, including cancer.

22 210. Defendants knew that the use of turnouts and/or Class B foam, even when used as
23 instructed by Defendants, subjected Plaintiff and others to a substantial risk of harm and yet, failed to
24 adequately warn Plaintiff, the EPA or the public.

25 211. As a result of their inadequate warnings, Defendants' turnouts and/or Class B foam
26 were defective and unreasonably dangerous when they left the possession and/or control of
27 Defendants, were distributed by Defendants, and used or worn by Plaintiff .

28 212. The lack of adequate and sufficient warnings was a substantial factor in causing

1 Plaintiff's harm and injuries, as described herein.

2 213. As a result of Defendants' failure to provide adequate and sufficient warnings,
3 Defendants are strictly liable in damages to Plaintiff.

4 214. As a direct and proximate result of the foregoing acts and omissions, Plaintiff
5 suffered the injuries and damages described herein.

6 215. Defendants acted with willful or conscious disregard for the rights, health, and safety
7 of Plaintiff, as described herein, thereby entitling Plaintiff to an award of punitive damages.

8 **THIRD CAUSE OF ACTION**

9 **(NEGLIGENCE AGAINST ALL DEFENDANTS)**

10 216. This cause of action is asserted against all Defendants on behalf of all of Plaintiff.

11 217. Plaintiff incorporate by reference all prior paragraphs of this complaint as though fully
12 set forth herein.

13 218. Defendants owed a duty of care towards Plaintiff that was commensurate with the
14 inherently dangerous, harmful, injurious, bio-persistent, environmentally persistent, toxic, and bio-
15 accumulative nature of Class B foam and turnouts containing PFAS or PFAS-containing materials.

16 219. Defendants had a duty to exercise reasonable care in the design, research, testing,
17 manufacture, marketing, formulation, supply, promotion, sale, labeling, training of users, production
18 of information materials, use and/or distribution of Class B foam and/or turnouts into the stream of
19 commerce, including a duty of care to ensure the PFAS did not infiltrate, persist in, accumulate in the
20 blood and/or bodies of Plaintiff and including a duty to assure their products would not cause users to
21 suffer unreasonable, dangerous side effects.

22 220. Defendants had a duty to exercise reasonable care to ensure that Class B foam and/or
23 turnouts were manufactured, marketed, and sold in such a way as to ensure that the end users of Class
24 B foam and/or turnouts were aware of the potential harm PFAS can cause to human health, and were
25 advised to use it in such a way that would not be hazardous to their health.

26 221. Defendants had a duty to warn of the hazards associated With PFAS and PFAS
27 containing materials and were in the best position to provide adequate instructions, proper labeling,
28 and sufficient warnings about the Class B foam and/or turnouts. However, Defendants knowingly

1 and intentionally failed to do so.

2 222. Defendants failed to exercise ordinary care in the designing, researching, testing,
3 manufacturing, formulating, marketing, testing, promotion, supply, sale, and/or distribution of their
4 PFAS chemicals and PFAS-containing products in the regular course of business, in that Defendants
5 knew or should have known that use and exposure to PFAS and PFAS-containing materials was
6 hazardous to human health and created a high risk of unreasonable, dangerous side effects, including
7 but not limited to severe personal injuries, as described herein.

8 223. Defendants also knew or should have known that the manner in which they were
9 manufacturing, marketing, distributing, and selling Class B foam and/or turnouts containing PFAS or
10 PFAS-containing materials was hazardous to human health, bio-accumulated in the blood, and
11 caused serious health effects, including cancer.

12 224. Defendants negligently and deceptively underreported, underestimated, downplayed
13 the serious health dangers of the Class B foam and/or turnouts products.

14 225. Defendants negligently, carelessly and recklessly recommended application and
15 disposal techniques for PFAS and/or for products containing PFAS that directly and proximately
16 caused harm to Plaintiff.

17 226. Defendants knew or should have known that firefighters working with and using Class
18 B foam and/or turnouts products would be exposed to PFAS.

19 227. At all times material, Plaintiff inhaled, ingested and/or absorbed dermally hazardous
20 PFAS contaminants released from the Defendants' Class B foam and/or turnouts.

21 228. Plaintiff's exposure to Defendant's Class B foam and/or turnouts, which were
22 connected to and incidental to Defendants' manufacture, design, sale, supply and/or distribution of its
23 PFAS-containing products, was harmful and substantially increased the risk of injuries to Plaintiff,
24 and did cause injuries to Plaintiff.

25 229. Defendants knew or should have known that the manner in which they were
26 manufacturing, marketing, distributing and selling Class B foam and/or turnouts containing PFAS or
27 PFAS-containing materials would result in harm to Plaintiff as a result of using Class B foam and/or
28 turnouts in the ordinary course of performing Plaintiff's duties as a firefighter.

230. Defendants knew, foresaw, anticipated, and/or should have foreseen, anticipated, and/or known that the design, engineering, manufacture, fabrication, sale, release, handling, use, and/or distribution of PFAS or PFAS-containing materials in Class B foam and turnouts, and/or Defendants' other acts and/or omissions as described in this complaint, could likely result in PFAS exposure to Plaintiff, the persistence and accumulation of toxic and harmful PFAS in his blood and/or body, and cause injuries to Plaintiff as herein alleged.

231. Despite knowing, anticipating, and/or foreseeing the bio-persistent, bio- accumulative, toxic, and/or otherwise harmful and/or injurious nature of PFAS materials, Defendants, their agents, servants, and/or employees, committed negligent acts and/or omissions that resulted in PFAS exposure to Plaintiff, the persistence and accumulation of toxic and harmful PFAS in his blood and/or body, and caused injuries to Plaintiff as herein alleged.

232. Defendants, through their acts and/or omissions as described in this complaint, breached his duties to Plaintiff.

233. It was reasonably foreseeable to Defendants that Plaintiff would likely suffer the injuries and harm described in this complaint by virtue of Defendants' breach of their duty and failure to exercise ordinary care, as described herein.

234. As a direct and proximate result of the foregoing acts and omissions, Plaintiff suffered the injuries described herein, which are permanent and lasting in nature, include physical pain and mental anguish, the need for lifelong medical treatment, monitoring, and/or medications. But for Defendants' negligent acts and/or omissions, Plaintiff would not have been injured or harmed.

235. Defendants acted with willful or conscious disregard for the rights, health, and safety of Plaintiff, as described herein, thereby entitling Plaintiff to an award of punitive damages.

FOURTH CAUSE OF ACTION

(LOSS OF CONSORTIUM AGAINST ALL DEFENDANTS)

236. This cause of action is asserted against all Defendants on behalf of Spouse Amy Graziano.

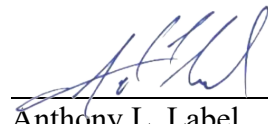
237. Spouse incorporates by reference all prior paragraphs of this complaint, as though fully set forth herein.

- 1 (5) Pre-judgment and post-judgment interest, at the legal rate, on all amounts claimed;
2 (6) Attorneys' fees and costs pursuant to C.C.P. § 1021.5 and/or as permitted by law;
3 (7) For equitable and injunctive relief, as necessary, to ensure that Defendants refrain
4 from continuing to harm others; and
5 (8) Any such further relief as this Court deems just and proper.
6

7 DATED: August 5, 2022

THE VEEN FIRM, P.C.

8
9 By:



Anthony L. Label
Theo Emison
Jacqueline K Oh
Attorneys for JASON
GRAZIANO AND AMY
GRAZIANO